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ABSTRACT

Designed to provide information for teachers wanting to use adventure activities with students and to help teachers in developing programs with clear objectives, solid logistic support, and safe policies and procedures, this teaching guide focuses on the goal of having a permanent impact on the self-concepts, behaviors, and attitudes of troubled adolescents. Two introductory chapters give an overview of the Wilderness School and the field of outdoor education: its history, purposes, processes and theories, and emphasize that the intent of the book is to present outdoor activities as small, manageable lessons that can be taught 75% in the classroom or schoolyard and 25% outdoors. In Section I the guide presents discussions, activities, and lessons, and instructions on how to use them, in the following areas: (1) initiative problems; (2) prerequisite skills; (3) backpacking and hiking; (4) paddling; (5) rock climbing; (6) outdoors in winter; (7) enrichment activities; and (8) debriefings. Section II, written for program organizers, includes a sample one-year calendar of activities, information on scheduling, logistics, safety policies and procedures, program evaluation, and checklists of equipment. Appendixes provide a sample contract from the Wilderness School program, brief reviews of the school's research, and a bibliography. (JD)

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the adventure book

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

a curriculum guide to school based adventuring with troubled adolescents

compiled and edited by Susan Erickson and Buck Harris

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THE ADVENTURE BOOK

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This guide is dedicated to three very special people whose examples amazed and inspired us all.

Bill Mischico, Monroe Alternative Education Project

Beth Anne McCabe, Connecticut Wilderness School

Al Atchson, Shelton Alternative Education Project

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INTRODUCTION

FOREWORD

To our readers:

This book represents three years of scheming, dreaming, hoping, testing, and evaluating. We knew when we began in 1977 that very few people were trying to make "Outward Bound" fit between the concrete walls of public schools' special education programs. We had no models or examples to lean on as we explained and cajoled our way through those early years. We had faith, however, in the effectiveness of the adventure education process, and we were confident of our directions and plans.

Those were the best of times and the worst of times, filled with the conflicting infatuations and uncertainties of a new program. We approached our third September with sureness and confidence, however, for we knew that our canoeing and confronting and guiding were not in vain. Our program worked.*

As we begin our fourth autumn we're tightening our belts for the famine of the recession. Although these are hard times for special programs, we hope that other teachers will continue with us to integrate adventure education with special education programming. We firmly believe that today's troubled adolescents are best served with an active, involving, caring, counseling process such as ours.

We hope that teachers, counselors, and administrators will find this guide useful as they plan their own adventure programs. If we help a few people avoid repeating our mistakes and if a few others experience our joys, then our efforts will have been worthwhile.

ACKNOWLEDGEMENTS

We'd like to use some space here to thank the many wonderful people who helped us make this book a reality. Dave Murphy, federal grants administrator of the Connecticut State Department of Education, granted us most of the funds to run the project and pull together this curriculum guide. David Hoffstadter, Kim Crown, Pam Herpich, and Dave Czaja carefully proofread sections of the book to track down typos and omissions. Jim Czaja sat with us on long, hot summer afternoons to explain the intricacies of printing and print shops. Two outsiders, Bob Nolte and Rich Maiola of RESCUE, offered excellent advice on writing objectives. We also want to thank Bob Bouffard from Winchester Press for his patient and generous help, and Dan Ray and John Flood for their thoughtful editorial advice. Annette Lemieux, artist and Kelly Emery, layout specialist added their artistic touches to the book.

There are dozens of others who were crucially involved in the development of our program. We'd like to thank the following people for their hard work and support on program design, instruction, and curriculum development:

Wilderness School Staff

Beth McCabe, John Flood, Nancy Florio, Corky Young, Peg Dillon, Mike Bowe, Dave Czaja, Terry Caberson, Marty Moore, Susan Stanawav. Kate Stevens, Dotty Soden, Mike Witz, and Laurie Devonshire.

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*See Chapter XVI for our evaluation results.

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Dr. Charles T. Olinski - Stress Management.

A special thanks goes to Shirley Gale who single-handedly typed and type set this document from chicken scratch on yellow paper to its final form.

And finally - with love to our students who taught us what we know and learned from our madness.

Yours, in Adventuring,
Susan Erickson
Buck Harris

ON USING THIS BOOK

This book has been designed to meet two purposes. The first purpose is to share information with teachers wanting to use adventure activities with students, and the second is to help teachers in developing good programs with clear objectives, solid logistical support, and safe policies and procedures. In other words, we tried to first help teachers in teaching students, and secondly tried to help them in organizing and running a program.

We have, therefore, divided this book into two sections. Section I, containing Chapters III - X, presents activities and lessons and how to use them with students. It includes lesson plans, hints on programming, and information on safety procedures. Section II, Chapters XI - XV, is written for a program organizer: food lists, safety policies, evaluation information, sample calendars, and checklists.

Our hope is that teachers will find both sections valuable, and will switch from one to the other as they change roles from teacher to counselor to food handler to salesperson. School-based outdoor programs are very often one-person shows, and we kept that in mind as we put together these sections.

CAUTION!

We have a responsibility to emphasize that this is a teaching guide, not a guide to outdoor travel or adventuring. We deliberately wrote this book *not* to teach rockclimbing or knot tying, but to present outdoor activities as small, manageable lessons that can be taught 75% in the classroom or schoolyard and 25% outdoors.

For those who need additional training in the outdoors, we suggest that they consult any of the resources listed in the Appendix, (Chapter XVI) or enroll in one of the excellent programs offering training to the aspiring adventurer. In addition, we heartily recommend that you get outdoors as much as possible and "experientially educate" yourself in outdoor-person-ship. (Do be careful!)

So why do we do it?
What good is it?
Does it teach you anything?
Like determination? invention? improvisation?
Foresight? hindsight?
Love?
Art? music? religion?
Strength or patience or accuracy or
quickness or tolerance or
Which wood will burn and how long
is a day and how far is a mile
And how delicious is water and smokey
green pea soup
And how to rely
On your
Self.

-On the Loose

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WHAT ARE WE DOING, AND WHY ARE WE DOING IT? II

Unbeknownst to most human service providers, adventure education has slowly and persistently crept into almost every niche of the helping professions. Programs like ours at the Wilderness School are not rare, and they are becoming more and more common all the time.

In this chapter we aim to give the reader an overview of the field of adventure education, a sense of its history, and an understanding of its purposes, processes, and theories. We also give a history of the Connecticut Wilderness School. Although this chapter is ambitious in its scope, it will hopefully provide a context and foundation for the ensuing chapters.

Origin of Adventure Education

Adventure Education as an organized educational effort began with the first "Outward Bound" school in Aberdovey, Wales in 1941. Dr. Kurt Hahn, a German educator exiled from Germany during Hitler's reign, was commissioned by a British shipping line to develop a program to train young seamen to survive in the icy waters of the North Atlantic after losing their boats to German submarines. Often the younger sailors would perish while the older seamen would survive. Hahn theorized that because of the young sailors' lack of strenuous life experiences, they lacked the inner strength and confidence necessary to survive. Hahn's first Outward Bound School was based on the premise that it is possible to develop a person's inner resources and increase their self confidence by placing them in a series of mentally and physically demanding experiences. The Outward Bound method took hold after World War II ended, and today there are thirty four different schools in seventeen countries throughout the world, and innumerable adapted programs. (For information on resources documenting the effectiveness of Outward Bound schools, please see Chapter XVI.)

The General Adventure Challenge Program

The curriculum for Outward Bound's basic three - four week course has evolved over four decades. The course generally begins with physical conditioning and basic skills training in the local school environment, be that sailing, desert traveling, hiking, or canoeing. During this training phase there is instruction in environmental awareness, search and rescue, first aid, map and compass, and equipment use. The second phase of the course involves the participants in a series of progressively more challenging activities. Students practice and master the skills learned in the first phase. Students also participate in a two - three day "solo", a time of solitude and quiet designed to develop self reliance and allow time for reflection. Students participate in service projects within the local community which help them to assess their own skills and values and develop a sense of community pride. The last phase is generally a final wilderness expedition which students plan and execute with a minimum of supervision from instructors. Courses end with a marathon event of some kind. Marathons can take the form of a 10 mile run, or a 15 mile cross country ski, or a long sailing voyage.

The vast majority of adapted Outward Bound programs use the activities outlined above, activities such as rock climbing, canoeing, basic skills training, service projects, solo experiences, a marathon, and a final graduation.

THE CONNECTICUT WILDERNESS SCHOOL

The Wilderness School serves 144 students each year with a summer twenty one day adventure challenge course and a one year follow-up program. In addition, eighty students enrolled in four public alternative high schools participate in a ten month school-based adventure program and have an option to participate in the summer wilderness course.

The goal of the Wilderness School is to have a permanent impact on the self concept, behaviors and attitudes of students. We attempt to accomplish this by:

1) affecting the students' attitudes, sense of self worth, pride and belief in themselves.
2) affecting the major components of the student's environment, (the living situation, family, school participation, and job potential.)

The Founding of the Wilderness School

The Wilderness School was founded in 1974. A group of concerned citizens saw the need for rehabilitative alternatives for troubled Connecticut youth. The available juvenile facilities were crowded and of questionable effectiveness for many of the teenagers. The theory underlying the Wilderness School was summarized by Jerome Bouchard of the Connecticut Department of Corrections in the initial proposal for the program:

> "One theory holds that failure, and the negative self-images resulting therefrom is a prime contributing factor to delinquency. This theory views the pattern of delinquency as a pattern of failure in many or all of the socially acceptable spheres: schools, home, peer relationships, and a number of others, forcing a rejection of these traditional areas of endeavor and a turn to delinquent behavior in search of success and self-esteem on the part of the individual.
>
> Subsequent entanglement with the criminal justice system reinforces and enhances already negative self-images, trapping the adolescent in a hopeless circle of rebellion, failure, a lowering of self-esteem, and further rebellion. This theory holds that Wilderness School experiences expose such an individual to highly significant socially acceptable success, significant by virtue of the dramatic and challenging context in which it is achieved. This leads to a re-evaluation of self-worth, a break in the failure syndrome, and a reawakening of identity with socially accepted goals.
>
> Also, the experience vividly illustrates and encourages several other traits and attitudes historically lacking in the delinquent adolescent: a reliance on and trust in others, the ability to exist cooperatively and in harmony with a group, and the necessity of thought preceding action, an important lesson for the delinquent adolescent habitually motivated by impulse alone."

Bouchard's rational for the effectiveness of an adventure challenge experience for delinquent youth was not new.

In 1965 the Division of Youth Services in Massachusetts initiated a treatment program that enrolled delinquent boys in Outward Bound courses. This project was one of the first attempts to use adventure programming therapeutically or rehabilitatively with troubled youth.

In 1968 Professors Daniel Baer and Francis Kelley, Boston University, researched the effects of the Outward Bound program as an alternative to incarceration for the Massachusetts DYS wards.

The initial findings were very encouraging. Twelve months after the Outward Bound experience, the participant's recidivism rate was only 20% while the control group's rate was 42%.[1] It became apparent that the Wilderness experience had a significant impact on the delinquent youth.

This Kelley and Baer study catalyzed the initiation of more adapted Outward Bound programs throughout North America. Over the past ten years the number of these programs has rapidly multiplied. In the fall of 1979 the Association for Experiential Education in its journal published a list of the ninety programs.

The Wilderness School Program

The Wilderness School's twenty-one day course is closely modeled after an Outward Bound course. To this basic program the Wilderness School has added three major components. Those components are the referring agency contact, the group counseling component, and the follow-up process.

Referring Agency Contact - Students are referred to the Wilderness School by youth serving agencies throughout the state of Connecticut. Before an agency can refer a student, staff from that agency are required to participate in a two day orientation course. The orientation consists of activities similar to those used with the students as well as a thorough overview of agency and Wilderness School responsibilities. This process enables agency staff to relate well to the student's experiences and strenthens staff members' relationships with the students as advocates and supporters within the home community.

Group Counseling Component - Counseling is an extremely important part of the Wilderness School course, a component uncommon to traditional Outward Bound schools. We firmly believe that counseling maximizes the learning that takes place in the outdoors. Counseling translates an experience into knowledge for our students, who come to see the course not as an isolated experience but as the beginning of constructive changes in their lives. Our group counseling theory is more fully

[1] "Physical Challenge as a Treatment for Delinquency", Crime and Delinquency, October, 1971.

discussed in this chapter, ("Reality Therapy"), as well as in "Debriefings", Chapter X.

Follow-up Process - We maintain contact with Wilderness School students for a year (sometimes longer) following their adventure experience. Our goal is to have a permanent impact on the goals and attitudes of our students, and we feel that a full year is needed to do this. Change is not easy, and students need help and support to make changes. The basis of the follow-up program is a contract made between each student, his/her parents, and the referring agency. The contract specifically details the students goals, and ways in which the parents, school, agency, or other parties will help the student reach his/her goals. (See Chapter XVI, Appendix, for a sample contract.)

In September, the Student Services staff at the Wilderness School are gearing up for a year's worth of follow-up activities: short courses, slide shows, parent courses, service projects, newsletter production, and special courses. During the same month, the Alternative Education Project staff at the Wilderness School are preparing for ten month cultural journalism* and adventure programs at various public alternative high schools. There will be classroom lessons, day hikes, overnight courses, special projects, and practice in outdoor skills. The Wilderness School began in 1974, and the school-based Alternative Education Project (AEP) began three years later.

THE ALTERNATIVE EDUCATION PROJECT

The AEP at the Wilderness School began operations in the fall of 1977 as a pilot program to test the feasibility of adapting the basic Wilderness School philosophy, curriculum, and methods to the needs of emotionally disturbed and learning disabled youth.

The September - June Program

We initially designed our program to resemble the standard Wilderness School program. After a thorough orientation of the school staff, our students participated in a twenty one day wilderness course. Our "follow-up" happened in the schools, and we envisioned having lots of time for interesting projects and individual counseling. Several months later we were a wiser but disillusioned staff. Some rather unsuccessful three week courses in Georgia and Florida left us confused and unsure. Although we had successfully worked with difficult students, the combination of severely disturbed students, the school setting, and the school year context were incredibly difficult. It seemed that we had some redesigning and rethinking to do.

After a few months of thinking and replanning, we emerged with a program that engaged students with outdoor pursuits in a very sequential, orderly fashion. We had learned that our students need to "baby step" their way into the outdoors, and we task analyzed our activities to help them do that. Our new curriculum emerged as a series of graduated challenges and lesson plans.

The current AEP involves students in a series of one - five day wilderness courses and a related set of in-school lesson plans and experiences. The year begins with a four day orientation course for the teaching staff at the participating alternative schools. This course provides teachers with the same experiences the students will have later in the year with all the accompanying rigors, fears, and elations. We aiso take time to plan the curriculum

*In 1979 the Wilderness School Alternative Education Project piloted a cultural journalism program. The program teaches language arts and journalism skills to high school age, special needs students. The students produce a magazine featuring articles about the local community.

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with the teachers and dovetail each school program with our program as carefully as possible. Our teachers will be at each school at least one day each week, and knowledge of curriculum, discipline, school rules, and school practices are all very important.

Next we schedule a series of wilderness experiences, and make sure that the in-school lesson plans prepare students for each up-coming course. A backpacking trip, for example, is always preceded by lessons in first aid, map and compass, expedition etiquette, and how to pack a pack. (For more information on scheduling, please see Chapter XI).

The teenagers served by the AEP are enrolled in public alternative high schools. These school systems, having recognized the special needs of a portion of their community's adolescents, elected to add an adventure component to their alternative high school's curriculum. The adventure program was made possible by a special grant from the State of Connecticut's Bureau of Pupil Personnal and specifically addresses the affective and behavioral needs of enrolled students.

Who are the students? They are 14 - 17 year old, emotionally disturbed, learning disabled, push out - drop out students. These are young men and women who have left their school systems, angry and frustrated after successive failures in a system that serves most of its students well, but the remainder very poorly.

The passage of the Education of All Handicapped Children Act (Public Law 94-142) in November of 1974 mandated that every local education agency must provide all young people with a free and appropriate education in the least restrictive environment available. This particular teen-age population is a priority under the law. Most of these students have emotional and behavioral problems that interfere with their abilities to learn and function in schools. Because their behavior is often very inappropriate, many school systems have set up alternative programs that remove these students from the usual school environment and place them in a different setting. The alternative schools' curriculum recognizes and deals with their behavior problems in a way that is virtually impossible for the regular school system to do. Our adventure program meshes with each alternative school and directly addresses the students' affective needs.

Students' Needs

Most of these students need successes, successes they have not had and often believe they cannot have. They need alternative approaches and methods that don't make them suspicious of school programs and certain of their own failure. These students need caring, self-confident adults who have the energy to insist that they behave appropriately and enforce consequences if they don't. They also generally need a large dose of academic remediation as most of them have never had the openness and self-confidence to sit and learn basic skills.

Adventure programming serves as a vehicle to enable these students to gain control over themselves and their lives, and to recognize themselves as valuable people with contributions to make to others and to their communities.

The process is not magic unto itself. The students do not change as a result of hiking or rock climbing. We combine the activities with a unique approach to counseling and behavior management.

COUNSELING AND REALITY THERAPY

Reality therapy is a special kind of teaching/counseling that works well in consort with adventure education. R.T. tries to teach in a short, intense period of time what should have been learned during normal maturation. The basis of the therapy is twofold: first, the reality therapist must become involved with the client before effective therapy can take place, and second, the client must make a value judgement to wanting to live a more constructive, responsible life.[2] These two points must be explained more fully. It is only through meaningful involvement with a client that the therapist can act effectively. It is his/her role to reject inappropriate behavior while maintaining close involvement with the client and continuing to appreciate and to accept him/her. Without involvement and trust, the client will have difficulty in maintaining his/her commitment to live more responsibly.

Secondly, a client must recognize that his/her life is irrational and painful, and must decide that to live differently will be valuable, necessary, and worthwhile. Without this decision, change cannot take place. As Reality Therapy continues the therapist re-teaches. His/her role is to teach the client new and better ways to fulfill their needs within socially acceptable confines. Reality Therapy

[2] Glasser, William, Reality Therapy, Harper and Row, New York, New York, 1965.

deals only with the present. It assumes that people can live deliberately, and that positive emotional feelings will follow constructive actions.

Behavior Management

The second important component of our teaching/counseling approach is a structured disciplinary system. Our system is very simple and straight forward, and is understood by students, our staff, and the alternative school staff. We have clearly specified rules for general classroom lessons, wilderness courses, and each outdoor activity. We carefully explain our rules and the consequences for breaking them to our students. After these explanations are clear, it is our responsibility to consistently enforce the rules.

It requires tremendous energy and patience from our instructors to continually reprimand and correct kids but it is very important. Our students have difficulty controlling themselves and will test us to determine if we are capable of controlling them. We show them that we are serious in our expectations of them and believe that they can behave inappropriately.

The Outdoor Setting.

We feel that the natural environment and related wilderness activities provide us with an excellent setting for working with troubled kids. We have chosen this as the best vehicle for our practicing Reality Therapy and our strong discipline system. The Wilderness environment provides us with an unyielding structure that cannot be manipulated, ignored, or disregarded by students. A summary of the helpful characteristics of the outdoor environment is written below.

Simplified Environment - The wilderness environment is an excellent therapeutic setting for our program. The environment is simple, and this simplicity works to our advantage because we are able to focus on problems and issues within the group. We are able to see the various issues clearly because they are not complicated by outside stimuli.

Natural Consequences - Mother Nature is an effective, impartial teacher. While living in the outdoors, consequences are concrete, tangible, and immediate. For example, if students don't properly pitch their tarps and it rains, they will get wet. We follow Mother Nature's example in our behavior management system. If a student refuses to attempt an activity or treats fellow group members without respect, s/he copes with the consequences of a confrontative group session and perhaps will be asked to leave the program for a length of time.

Voluntary Participation - No student is ever forced to participate on one of our wilderness experiences. This is an important point. It insures that students have chosen to hike or paddle and have the related motivation that will pull them through the experience when the going gets tough. This should not imply that we allow students to easily quit if they change their minds about wanting to be with us. We work hard to convince them to stay when they want to leave an outdoor experience

Daily Group Counseling Sessions - At least once each day a counseling session is held with the students on a wilderness experience. During these sessions emphasis is placed on the positive behaviors of group members. Students are continually validated and appreciations are frequently shared. This helps to form a trusting, caring, community and a positive peer environment.

Positive Peer Environment - A positive peer environment encourages positive behavior, sharing of feelings, honest and open communication, and an environment where the desire to change is encouraged and supported. This generally contrasts dramatically with students usual peer culture in or out of school.

Honest Confrontation - Although we attempt to stress the positive, our instructors are not reluctant to openly confront students when they act inappropriately. We try to maintain a caring and accepting attitude towards the student while rejecting and explaining the consequences of their inappropriate behavior.

Immediate Application of Skills - In adventure programming one teaches a skill and then students use it immediately. Students begin to see learning as useful and meaningful rather than a burden to avoid and manipulate.

Responsibility for Learning is on the Learner - Instructors teach a series of skills that enable students to complete each challenge. After teaching, the instructor supports each student's performance and ensures safety. The students themselves are responsible to made proper use of the newly acquired skills.

SUMMARY

In summary, the outdoor setting provides a vehicle to allow the involvement, the decision to change, and the re-teaching to happen. Outdoor activities

are dramatic and engaging, and students are compelled, in many ways, to become both involved with others and to act responsibly. The consequences of not doing so are often drastic enough to force students to act appropriately. Through these initial successes and interactions, students begin to see the joys of participating, trying, and helping others. These realizations are key to our program's success.

IF YOU HAVE TO WRITE AN IEP

Public Law 94-142 mandates that all students between the ages of five and twenty one years are entitled to a free and appropriate education. This law catalyzed the boom in special education, educational processes and programs designed for handicapped students, and the related process of the development of individualized educational plans (IEP's) for those students.

The alternative schools that we service generally serve special education stduents. Most of these students have been thoroughly evaluated as learners and have an I.E.P. These schools often write into selected student's I.E.P. a set of instructional plans that include participation in the Wilderness program.

The IEP process can be used effectively in providing our special needs students with adventure experiences and our schools with wilderness programs. If we feel that a student has a specific set of social, emotional or academic deficiencies, we can design an experiential education program to address these needs.

Every special education student has a planning and placement team (PPT), a group of concerned teachers, counselors, parents, and psychologists who develop an IEP for that student. The PPT's are required by law to make appropriate educational plans for students, and can decide that a wilderness program is a necessary addition to students' instructional programs.

An adventure program can address a student's social, emotional, physical, or cognitive needs. The program is interdisciplinary and diverse, as is the development of an IEP for each student. Most teachers chose to use adventure programming primarily as an affective tool, and use it in an instructional plan as a method to address social, emotional or behavioral objectives. Each chapter of Section I includes a list of behavioral objectives which cover that unit as a whole. These objectives can be used by teachers and counselors in drafting an IEP for a student. For many schools, however, it is more appropriate to write objectives that refer *not* to specific outdoor activities but to participation in an adventure program for a particular block of time, twelve weeks or perhaps ten months.

To help teachers in writing IEP's for adventure programs we have included two lists. The first list offers a series of sample behavioral objectives for participation in a complete wilderness program. The second list charts connections between particular students' needs and specific wilderness units. The objectives contained in this chapter as well as in each unit can be borrowed or adapted for your own use.

Adventure Programming: Behavioral Objectives

Student will attend 75% of the classroom activities and 75% of the outdoor experiences offered as part of the Wilderness Program.

During lectures or discussions, student will at least 75% of the time demonstrate good listening skills by having a quiet mouth, quiet body, and eye contact with the speaker.

At least once during each wilderness class, student will interact positively with a peer by asking a question, answering a questing, giving a response, or helping with a project.

During a class discussion or debriefing, student will contribute at least one relevant thought or remark to the group.

Connecting Student Needs to Wilderness Programming

	Need	Strategy/Activity
Social/Emotional	peer interaction	initiative problems, back packing, rock climbing
	self concept, self confidence	rock climbing, canoeing, service projects, debriefings
	attitudes toward home/ school/community	service projects, debriefings, enrichment activities, any outdoor activity
	independence	rock climbing, cross country skiing, solo
Physical	fine motor	knot tying, compass use, camp stove use, belaying
	gross motor	back packing, skiing, rock climbing, canoeing
	agility	initiative problems, rock climbing
	strength	back packing, rock climbing, canoeing
	cardio vascular fitness	back packing, cross country skiing
Cognitive	problem solving skills	initiative problems, map and compass, first aid
	mathematics	logistics, map and compass
	language arts	journal writing, press releases, poem writing
	self expression	debriefings, poem writing
	sciences, social studies	enrichment activities, service projects

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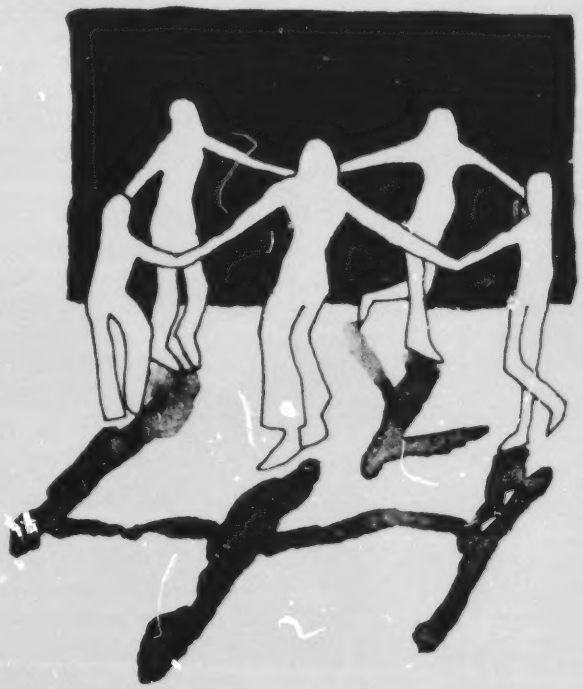
INITIATIVE PROBLEMS

INTRODUCTION

These days, it seems that just about everyone has had the opportunity to try a "trust fall" or play a round of "knots". These activities and others like them have been used for years by adventure-challenge organizations. Schools, camps, and youth service bureaus now use them successfully as part of their various programs. Most people, teachers and instructors as well as students, enjoy these challenging, intriguing group problems.

"Initiative Problems", as these activities are most commonly called, pose to a group a clearly defined problem that demands all the participants' cooperation and effort to solve. Through the process of suggesting, listening, agreeing, attempting, and planning, students complete a contrived problem: a swing across an imaginary canyon, or an escape from an "electric pen." Most initiative problems center around a physical challenge, while others ask groups to solve a written problem or work with pencil and paper.



WHY USE THESE CRAZY GAMES?

We use initiative problems to break the ice with a new group, give students an opportunity to try new roles, and ask students to take risks with one another. Students discover themselves in new situations and roles, and as they succeed and solve problems they feel proud to have coped well. We find that the freshness and fun of initiative problems draw reluctant students into the group, and encourage students to help and support one another.

Initiative problems vary in their level of difficulty. Problems can be physically demanding or mentally demanding; some are simply solved and others are more complex. Understanding these differences is key to using the prolems well.

If you think you're beaten, you are;
If you think you dare not, you don't;
If you think you'll lose, you're lost,
for out in the world you'll find
success begins with the will -
It's all in the state of mind. *-Anon.*

CHOOSING AN ACTIVITY

Before using an activity with a group of students, be sure to take a careful look at first, the students, and secondly, the activity. Have the students worked together before? Can they listen to one another? Are they physically fit? Have they learned to spot? Can they cope with elaborate equipment and complicated rules? Do they know each other? Is this their first initiative problem or their seventh? The answers to these questions will help you decide which activity to choose.

The following chart attempts to sort various initiative problems and new games into some categories. The activities are arranged by complexity and difficulty. Although our categories are not hard and fast rules we feel that they help us to select problems.

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USING INITIATIVES

Simple Acquaintance Activities Hog Call Duo Sit Impulse Compass Walk Toe Tag * Line Ups	Getting-to-know each other activities requiring minimal problem-solving, but encouraging interaction and sharing.
De-Inhibitizers Witch's Broom Karate Yell Tractor Roll * Rock, Paper, Scissors Prui	Rather crazy, silly activities, useful in relaxing people and loosening up a group.
Trust * Trust Fall Trust Dive Make Your Mark People Pass Trust Leans	Activities demanding that an individual trust his/her physical well-being to others.
Simple Problem Solving * All Aboard Goldline Stretch Clock * Tangle Bump Blob Tag	Problem-solving games with fairly simple solutions and minimal amounts of trial-and-error.
More Complex Problem Solving Nitro Crossing Vertical Pole and Tire Jelly Roll * Electric Fence Trolley * Blindfold Square	Problem-solving activities demanding high levels of cooperation, compromise, and effort.
Communications Stranded Murder Mystery Traffic Jam Blindfold Soccer	Games demanding verbal skills, listening skills, and mental effort more than actions.

*Activity described in next section.

It was his belief that "the aim of education is to impel people into value forming experiences . . . . . to ensure the survival of these qualities: an enterprising curiosity, an undefeatable spirit, tenacity in pursuit, readiness for sensible self-denial and above all, compassion." - *Kurt Hahn, Founder of Outward Bound*

Almost all of these activities come from either Project Adventure's Cowstails and Cobras or The New Games Book. Project Adventure and the New Games Foundation deserve great acclaim and praise for their contributions to adventure education and cooperative play.

The seven initiative problems in the next section are among the more classic initiatives, and have been used successfully for years. There are dozens contained in the resources listed below, and it isn't hard to create your own initiatives or problem solving activities out of almost any situation. A good challenge works well to inspire an apathetic group.

FINAL THOUGHTS

It is important that time be taken to "debrief" or process each activity in order to maximize the potential gains to be had from each activity. During the process session, the group looks at its individual and collective styles of dealing with problem solving. Analogies are made between the students' methods of coping with the contrived problems, and their methods of dealing with "real life" situations. Chapter X "Debriefings", discusses this more fully.

Behavioral Objectives
Initiative Problems

During at least 75% of class initiative problems:
- each student will make one helpful comment to the group.
- each student will physically aid a classmate. (step over rope, hold onto hands, etc.)
- each student will listen (make eye contact with and remain quiet) to a classmate.

RESOURCES

Project Adventure
P.O. Box 157
Hamilton, Mass. 01936
617-468-1766
Book: "Cowstails and Cobras"
P. A. offers workshops on adventure activities, ropes courses and the like, and provides services to schools.

The New Games Foundation
P.O. Box 7901
San Francisco, California 94120
Book: "The New Games Book"
N. G. F. has a catalogue, newsletter, and regular workshops.

"Cooperative Sports and Games"
by Terry Orlick
Pantheon Books
Fun games to use with younger children.

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BLINDFOLD SQUARE

Objective

Students will form a large, perfect square from the rope while blindfolded.

Transferable Learning

Students use geometry skills and work cooperatively with others.

Materials

One blindfold for each student, a long (eighty to one hundred foot) rope, a large open area.

Procedure

1) Tie the two ends of the rope together in a knot, and pile the rope on the ground. Make sure the rope will not tangle.
2) Ask the group to form a circle around the rope, and to hold onto the rope with one hand. Everyone must keep one hand on the rope at all times.
3) Have the students blindfold themselves.
4) Challenge the group to form a perfect square with the rope. They may talk, move about, or whatever, but they must all keep on their blindfolds and hold onto the rope at all times.

LINE-UPS

Objective

Students will line-up in a given order as smoothly and rapidly as possible.

Transferable Learning

Students practice numerical or alphabetical skills and work cooperatively with others.

Materials

Hats, sticks, or rope to mark a line.

Procedure

1) Ask students to order themselves in a line according to (choose one):
   a) Birth date
   b) Alphabetical order - first name
   c) Alphabetical order - last name
   d) Height
   e) Weight
2) a) Give each student a card with the name of an animal written on it. (A good selection of ten animals is *snake, frog, crow, cat, dog, goat, cow, horse, gorilla, elephant.)* Students must keep their cards private.
   b) Ask the students to line themselves up according to the size of their animals without using words; they may use animal noises, gestures or motions.

ROCK - PAPER - SCISSORS

Objective

Each team will try to tag members of the opposite team, thus increasing its own team size. The larger team wins.

Transferable Learning

Students learn to think quickly under pressure and have fun playing with others.

Materials

Sticks, hats, ropes or other objects to make three boundary lines.

Procedure

1) Set up three parallel lines twenty feet apart.
2) Divide the students into two teams and have the two teams stand on opposite sides of the center line facing each other. Each team has its own free zone behind its end line.
3) Explain to students the object of the game (see above), and that they win an opportunity to chase and tag the opposite team members by throwing out a stronger symbol.
4) Teach the three symbols: a clenched fist is rock, an open hand is paper, and two extended fingers means scissors. The order of strength is as follows: paper covers rock, rock crushes scissors, scissors cuts paper.
5) Each team huddles and chooses a symbol, either rock, paper, or scissors. The two teams then meet at the center line and chant "Rock! Paper! Scissors! Shoot!". On "Shoot", each team throws out its symbol.
6) The team showing the stronger symbol chases and tags its opponents. Those tagged join the chaser's team, those who ran across their end line untagged are free for the next round.
7) Continue play until students begin to tire of the game or all people end up on one team.

ALL ABOARD

Objective

Students will fit the entire group onto the platform for ten seconds.

Transferable Learning

Students work cooperatively with others, and feel comfortable in close physical contact with others.

Materials

A small platform (approximately two feet square, a 55 gallon drum lid, a piece of plywood, etc.)

Procedure

1) Clear the floor/ground of rocks, sticks or other debris and put the platform on the ground.
2) Challenge the group to get up and onto the "life raft" for ten seconds as a volcanic explosion at the head of the valley has sent bubbling lava down toward the group. Give them five minutes to complete the task.
3) Spot any students up on people's shoulders or leaning precariously out from the group.
4) Discourage pig piles.

TANGLE

Objective

Students will untangle the human knot to its most simplified form.

Transferable Learning

Students learn to work slowly and deliberately rather than impulsively, and work cooperatively together.

Materials

None

Procedure

1) The group forms a tight, shoulder-to-shoulder circle.
2) Each person extends a hand and holds someone else's hand.
3) Each person extends a second hand and holds a different person's hand.
4) Without letting go, the group untangles to form a circle, twisted circle, or whatever.
5) Students may rotate hands or switch grips in orger to avoid straining their joints, but they must not let go of the other person's hand.

TRUST FALL

Objective

Each student will fall safely into the arms of the lined-up group.

Transferable Learning

Students learn that others can be trusted with their physical well being, and that a group can perform tasks that an individual cannot.

Materials

A platform (table, stonewall) 2 - 6 feet high, depending on the level of "drama" desired.

Procedure

1) Make sure students have completed some trust lean activities. (See Chapter VII, "Rockclimbing")
2) Ask the group to form two parallel lines, shoulder to shoulder, facing in, and perpendicular to the chosen platform.
3) Ask students to remove jewelry from their hands and wrists. Hands are then extended in front with palm up and elbow bent, hands are alternated with each facing partner's hands.
4) Pick a volunteer to climb up on the platform and turn his/her back to the group.
5) Instruct the faller to stay stiff, keep his/her hands tightly against the thighs, and tilt his/her head back.
6) When both the group and faller are ready, the faller may close his/her eyes and drop back.
7) Toss the faller (gently! carefully!) into the air a few times, or pass the faller down the line to the end for a controlled return to earth.

Comments

This is a potentially dangerous activity, and leaders must be attentive throughout. Some notes:

a) If your fallers are jumpy or impulsive, it's a good idea for an instructor to stand on the platform next to them with a hand on their back. This will prevent a premature fall.

b) Position an instructor strategically in line to catch the faller's shoulders and head. Should the group "flinch", an instructor will be able to catch the upper body and let the feet hit the ground.

c) Make sure the group is attentive and ready, and arrange a signal so the faller will know when to fall.

d) It's a good idea to begin the trust fall with some fairly lightweight people. This gives the group an opportunity to practice the process.

e) If you (the instructor) do not feel ready to drop into your group's arms, do not use this activity. You don't have to be the first faller, but it is important that you participate as well as the students.

ELECTRIC FENCE

Objective

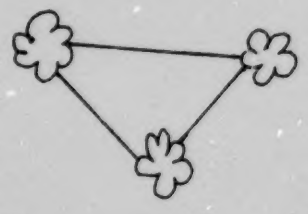
Students will escape from within the electric fence using an eight foot board and their own efforts.

Transferable Learning

Students work cooperatively, practice the art of compromise, and see the value of thorough planning.

Materials

A wooded area, a 40 - 60 foot rope, a sturdy, eight foot long board.



Procedure

1) Set up the electric fence by tying a rope to three trees in a triangular arrangement. The rope should be about five feet off the ground.
2) Ask the students to step inside the fence and bring the board with them.
3) Challenge the students to escape from the fence using only each other and the board. 500,000 volts of electricity run through the trees and the rope.
4) If a student touches the trees or rope, s/he is electrocuted and must begin again.
5) Because people and the board conduct electricity, more than one person can be zapped at a time.
6) Students must be spotted carefully as they go over the rope.
7) No "high jumping" the rope is allowed.

This is our last night in the Adirondaks. The beauty of these mountains is something that will remain with me for a long while - the great joy of drinking pure water out of a mountain stream, without chlorine in it to kill mans pollution, the incredibly beautiful view from atop these high peaks as nature makes ready for the shedding of autumn and the approach of winter, and perhaps most of all, of being with all of you and being able to share these joys and also the suffering so these past six days. We are all so special in our own way. Feel it.

-Charlotte Flood

PREREQUISITE SKILLS IV

PREREQUISITE SKILLS

Prerequisites are those skills that we consider important for our students to have before moving from the schoolyard or classroom to the backwoods. Some of these skills are necessary for reasons of safety or health, and others enhance students' peace of mind and comfort level in the outdoors. In either case, we feel very strongly that it is overwhelming to an out-of-doors novice who is also sixteen and behaviorally troubled to confront a new environment, strange equipment, and difficult group dynamics all at the same time. Therefore, we try to orient students to this new environment before heading outdoors.

TEACHING THE BASICS

The skills we feel are basic to undertaking an outdoor experience are first aid, basic campcraft, (setting up tarps and tents, using small cookstoves, firebuilding, camp cooking), wilderness navigation, and group awareness. Without these skills a simple overnight is a colossal undertaking. If students have a general understanding of most of these areas, then they are able to interact with the group and practice these skills without the excessive acting out that comes with a feeling of insecurity, or the chaos generated by trying to learn too much too fast.

We have often found the outdoor setting to be an appropriate place to review and practice basic skills, but not always the best setting for introducing those same skills. This is contradictory to most experiential teachers, who believe that it's important to teach a skill as it is needed. Although we often teach this way, many times we'll first use the classroom or school grounds rather than the forest.

Students are often distracted or physically uncomfortable outdoors, and have difficulty paying attention to instructions. Although a well-adjusted individual might be able to learn to use a stove at 5:30 p.m. on a drizzly afternoon while tolerating a growling stomach, most of our students cannot. Hence, we teach a great deal of information beforehand, and review the skills in the field.

Teaching basic outdoor skills enhances our students ability to take risks, as does our using a sequential, task-oriented method of introducing a new activity.

ALLEVIATING ANXIETY

In order to decrease the fear and tension that most of our students feel in new situations, we try to increase their familiarity with as many components of an experience as possible before placing them in that experience. White-water canoeing, for example, we break down to flat water skills, white water skills, equipment, safety procedures, and partnership skills. We teach each component separately, and some of them away from the water. In this way, a student has mastered 75% of the material needed before confronting the challenge.

In addition to increasing a student's familiarity with the various components of an experience, we also strive to increase a student's trust level with any particularly important components. For example, students must not only understand how, when, and why to wear a life jecket, but they must also have faith in its effectiveness. For this reason we'll often try something crazy like dissecting a life-jacket or floating a life vest in a swimming pool with weights of various sizes. This learned faith gives them added confidence in their own ability to undertake a new challenge and belief in their personal safety. These beliefs make it easier for our students to take new risks.

FIRST AID

A basic knowledge of the workings of the human body and an understanding of how a first aider can keep those systems functioning is crucial to being safe in the out of doors. Before taking students out for a hike or bushwack or paddle, we always teach some basic first aid.

We do not want to re-write here what the American Red Cross has already done extensively, instead we refer you to their books. (See "Resources" at the end of this chapter.) We have included in this section, however, some ideas on teaching first aid and a checklist of skills that we use informally to evaluate a student's readiness to head outdoors. We, as instructors, also feel more secure knowing that our

students can handle minor emergencies. (In the history of outdoor adventure programs there has been more than one incident in which an instructor has been kept alive by students who received basic first aid training from that instructor.)

First aid lessons help foster an attitude of safety consciousness which prevents accidents. We have found that it can increase our students self confidence in potentially dangerous situations, and teach them to react quickly and effectively in medical emergencies. Before engaging in wilderness experiences in remote areas students should know the following:

I Background Session
- a) importance of first aid and accident prevention.
- b) item by item examination of contents of first aid kit.
- c) standard emergency care procedures.

II Critical Situations - Treatment
- a) external severe bleeding
- b) internal bleeding
- c) respiration failure
- d) cardiac arrest - (certification by the American Heart Association or American Red Cross is required before Cardiopulmonary Resuscitation (CPR) can be administered)
- e) Shock
- f) hypothermia (including immersion)
- g) heat stroke
- h) spinal injury
- I) head injury

These less critical medical problems are also important, but we usually cover this information at a later time than I and II above.

III Less Critical Situations
- j) burns
- k) wounds
- l) snake bite
- m) heat exhaustion
- n) frost bite
- o) fractures
- p) blisters
- q) insect bites

For more information on safety, please refer to Chapter XIII, "Safety".

WILDERNESS NAVIGATION

Map and compass skills are difficult to teach and also to learn. There are many skills used in map and compass work, and it requires a combination of math skills, the ability to visualize, and abstract conceptualization. Some people seem to pick up this skill quickly, while others struggle for quite a while. We've evolved to a point of teaching some of these skills indoors and the remainder in the field. Therefore, you'll find some lesson-plans for teaching maps and compass in this section, and the remainder in Chapter V, "Backpacking and Hiking".

SOME LAST WORDS

The following lessons cover material that is basic to almost any expedition: methods of providing oneself with food, clothing, and shelter. Although ideas for the development of individual and group enthusiasm for an endeavor are not here, we highly recommend that you use some of the activities in Chapter III, "Initiative Problems" before a course. The spirit developed through the use of these activities may give your group a "tailwind" as they set out on an adventure.

Behavioral Objectives
Prerequisites

Each student will demonstrate mastery of three of these skills: fire building, use of a tarp, selecting a campsite, planning a 1 day menu. (Mastery of each skill is described in the appropriate lesson.)

During a one day hike, each student will follow 80% of the rules listed in "Expedition Etiquette".

Following participation in a one day hike and while using a topographic map, students will make no more than two errors in describing the route followed and the terrain covered. Students will use the words "north, south, east, west" and "flat, uphill, downhill, swampy, peak", etc. in the description.

Using a standard first aid kit (see Chapter XII, "Logistics", for lists), students will correctly identify 80% of the contained items.

RESOURCES

American Red Cross, Advanced First Aid and Emergency Care, Doubleday, New York, N.Y., 1973.

The Seattle Mountaineers, Freedom of the Hills, The Mountaineers, Seattle, 1972.

Petzoldt, Paul, The Wilderness Handbook, Norton, 1974.

Fletcher, Colin, The Complete Walker, Unopf, New York, N.Y., 1974

The Healthy Trail Food Book, Dorcas Miller, Coastal Business Center, Maine, 1976.

FIRST AID KITS

Objective

Students will learn the contents of a first aid kit and the use of the items.

Transferable Learning

Students will be aware of the importance of being prepared and caring for others' health and safety.

Materials

A first aid kit (see Chapter XII, "Logistics", for a list of contents of kit), pencils and paper.

Procedure

1) Divide the students into two teams.
2) Lay the equipment out on a large table. Give each team two minutes (send the other team out of the room) to discuss the kit contents.
3) Have the two teams sit on opposite sides of the room.
4) Each team alternately sends one person forward to choose an item, identify it and give its use. Each correct explanation earns one point.
5) The other team then has an opportunity to add information about the item, and can earn one point.
6) A wrong explanation results in no points.
7) Highest score wins.
8) The teacher elaborates on the care and use of each item as the game proceeds.

Evaluation Activity

Pass out one - two items to each student, and ask the group to sit in a circle. Each student then explains his/her item.

ACCIDENT SIMULATION (GENERAL OUTLINE)

Objective

Students will demonstrate how to care for a particular kind of injury or problem.

Transferable Learning

Students will see the importance of retaining and using information, will work cooperatively with others, and will learn to respect physical well being.

Materials

First Aid Kit

Procedures

1) In order to avoid excess alarm, be sure to explain the concept and purpose of a first aid simulation to students in advance.
2) Choose one or two injuries to use, and "dress" a victim appropriately. Pin notes to his/her clothing saying (for example) "dislocated shoulder", or draw a wound or broken bone. Use fake blood or makeup if realism is wanted.

3) Position the victim.

4) Instruct the students as to their objective: treatment, and evacuation, or whatever.

5) Let the students complete the activity, try not to intervene.

6) Following the activity, critique their performance as first aid attendants as well as an effective cooperating group.

Comments

1) This activity is particularly effective if it includes an evacuation of about one mile. Students learn the difficulties and hardships of carrying a heavy stretcher and are much less likely to be careless or to "fake" an injury.

2) Teaching stretcher construction is fun and valuable. Saplings, climbing ropes, sleeping bags and pack frames are all useful as improvised stretchers. Stretcher construction is a good initiative problem.

Evaluation Activity

Put together several stories about an accident (describe victim, setting, available materials, etc.) Read the stories to the students and ask "What would you do if . . . ? "

FIRST AID ROLE PLAY

Objective

Students will understand heat exhaustion, and will learn how to treat it.

Transferable Learning

Students learn that careful planning and correct information can prevent problems.

Procedures

1) Review good listening skills to prepare for watching a skit.

2) Teachers tell students that they will be treated to free entertainment. When students are seated and quiet, teachers role play the following skit:

Two hikers (Ted and Sally) are walking along trail with backpacks. Ted begins to straggle behind. Sally stops and goes back to check on Ted. Ted snaps at her and she remarks upon how ornery he has become. Sally then touches his arm and says, "Your skin is so cold and clammy!" Ted then complains of being nauseous and dizzy.

3) Stop the Action

Explain that Ted is showing signs of heat exhaustion. Explain heat exhaustion. Instructors will have students tell what symptoms Ted has and write them on the blackboard. Return to action.

Sally takes Ted over to the shade and has him lie down and get comfortable. She then mixes some saltwater and has him drink it very slowly.

4) Stop the Action

List on the board what steps were taken in treatment. Then tell them that they'll now see what can happen if he isn't treated in time. He goes into shock. Return to action.

Ted gets pale and unresponsive. Sally notices his quick, shallow breathing, his rapid pulse and dilated pupils. They keep hiking anyway. Ted drops unconscious.

5) Stop the Action

List the symptoms on the board. Explain preventative treatment. Return to action. (con't.)

(con't.) Sally has Ted lie down in the shade as soon as he complains of the heat and dizziness. She elevates his feet, reassures him, and gives him some salt water. He is o.k. and they hike off.

6) Stop the Action

Instructors come out of the roles and discuss shock. Explain that anyone can go into shock for a variety of reasons. Explain that in all first aid, the victim is treated for shock.

Evaluation Activity

Students pair up and treat one another for heat exhaustion and shock.

Comments

1) This type of role play is effective in explaining hypothermia, heat exhaustion, shock, and other conditions.
2) Students love to watch their teachers "act", and seem to retain information given in this way.

FIRE BUILDING

Objective

Students will learn how to build a fire safely and well.

Transferable Learning

Students learn the importance of patience in creating something and learn to respect the environment.

Materials

Wooded area, string, water.

Procedure

1) Tie string tightly between trees, one foot off the ground. Allow fifteen feet for every three students.
2) Gather the materials for a sample fire. Ask students to look for tinder, kindling, and wood; explain terms.
3) Use a fire scar or dig a fireplace, and discuss with students the importance of *not* creating new fire scars along trails. Explain how to dig and later cover up a fire place. Build an edge to the fireplace, etc.
4) Build a small fire. Explain *tinder point* and the importance of adding larger sticks slowly. Explain how to use wet wood. Put fire out thoroughly, and emphasize safety.
5) Ask the students to form groups of three, and to correctly build a fireplace and fire under the string. The first fire to ignite the string and cause it to break wins. Emphasize control of fires.
6) Drown all fires, and break down fireplaces. Encourage students to make the area look untouched.
7) Discuss the activity, and review firebuilding procedures.

Evaluation Activity

Ask specific students to build fires during overnights and look to see that they have learned the skill.

CAMP STOVE USE

Objective

Students will learn to use a camp stove safely.

Transferable Learning

Students will develop their mechanical skills, willingness to work deliberately and carefully, and awareness of safety precautions.

Materials

Camp stove, fuel bottle, white gas, matches, flashlight, stove wrench, first aid kit, funnel.

Procedure

1) Open with a discussion of the importance, uses, and various kinds of camp stoves.
2) List and discuss the 9 safety rules for camp stove operation:
    1) Never refuel stoves indoors.
    2) Never refuel stoves in an area where stoves will be lit.
    3) Never add fuel to an already lighted or hot stove.
    4) Never check fuel level with a match or near lighted flame.
    5) Keep face away from stove when lighting it.
    6) Long hair must be tied back during camp stove operation.
    7) Keep fuel bottles away from fires and lighted stoves.
    8) No smoking near stoves or fuel bottles.
    9) Always recap stove and fuel bottle tightly.
3) Demonstrate the procedure for refueling and lighting a camp stove and incorporate the 9 rules of safety.
4) Have students practice refueling and lighting stoves under direct supervision.
5) Discuss ways to maintain and trouble-shoot stoves.

Evaluation Activity

Have students make posters outlining camp stove safety rules and procedures.

CAMPSITES

Objective

Students will know the characteristics of a good group campsite, and will learn about good outdoor health habits.

Transferable Learning

Students review the basic needs of human beings and learn to value and respect caring for oneself and others.

Materials

Newsprint, magic markers, tape.

Procedure

1) Ask students to work in groups of two - three. (con't.)

(con't.)

2) Discuss with students an upcoming overnight, and the need for good food and good rest. Discuss how a campsite replaces a home: bedroom, bathroom, kitchen, dining area, living room. Explain how these needs exist both at home and while camping, but are complicated outdoors by hills and valleys, wind, rain, etc.
3) Give students ten minutes to draw two campsite pictures. Ask them to show *where* it is (field, valley, mountain top, whatever) and also its layout (tents, fire, etc.).
4) Each group tapes its sketches on the wall. Students look at each others drawings.
5) As a group, brainstorm one's needs at a campsite: to sleep, cook and eat, meet for discussions, use the toilet. Emphasize needs for a safe cooking area and enough flat sleeping spots for everyone.
6) Introduce the term latrine, and explain how to dig one and use it. Discuss sumphole as well.
7) Discuss dishwashing and personal washing, and the importance of keeping soap 150 feet from a stream.
8) Discuss the trade-offs of sleeping on mountain tops, valley floors, fields, etc. in relation to wind, views, temperature, etc.

Evaluation Activity

As a group, draw on the blackboard a campsite encompassing the needs brainstormed earlier, and review good health habits.

TARPS AND TENTS

Objective

Students will learn to correctly set up a tent with a fly, and a tarp.

Transferable Learning

Students learn the importance of doing things well, practice mechanical skills, and cooperate with others.

Materials

Enough tarps and tents (with alpine cord, poles, and stakes) for each pair of students to have one.

Procedure

1) Put the tarps and tents in a pile, and ask the students to pair up.
2) Ask each pair to take a tarp or tent, and set it up nearby. Many of the pairs will need help with the tent flies.
3) When all the groups are finished, "tour" the area with the group and critique each set-up. This is a good time to teach the taut-line hitch (a knot). Emphasize the importance of adequate tension, a space between the tent and fly, and setting up tarps in such a way as to keep wind and rain out.
4) Give each pair an opportunity to re-set it's tent or tarp, and to set-up whichever they did not have an opportunity to try.
5) Debrief the activity, try to summarize methods and important points of shelter setting up. Also discuss teamwork.

Evaluation Activity

Ask students to pair up, and each explains to his/her partner the steps involved in setting up a tent or tarp.

YOU ARE WHAT YOU EAT

Objective

Students will learn the four basic food groups, and how to use them as a guide to good menu planning.

Transferable Learning

Students will increase their knowledge of nutrition, work cooperatively with others, and increase their awareness of their own eating habits.

Materials

Food cards, blackboard and chalk, pencil and paper.

Procedure

Part I:

1) Make up twenty - thirty cards with a food printed on them ("milk", "hamburger", "fritos"). Try to evenly distribute the foods between the four basic groups.
2) Stand the cards up on the chalk tray, and ask students to read through them.
3) Challenge the students to separate the cards into four logical groups, groups that have something in common. Give the students five minutes to sort the cards.
4) Listen to the student's explanation of the groups, and then elaborate on the four food groups: *Dairy, Fruits and Vegetables, Meats and Fish, Grains.* Using the blackboard, brainstorm and list foods for each group.
5) Introduce and define: *Fats, Carbohydrates, Proteins, Vitamins and Minerals.* Relate each to the four groups.

Part II

6) Ask students to write down a typical breakfast, lunch, and dinner for themselves.
7) Give the students this outline, and ask them to evaluate their own daily meals, based on this plan:

Breakfast	Lunch	Dinner
fruit	fruit	protein
protein or	protein and/or	grain
dairy	dairy	dairy
grain	grain	vegetable
	vegetable	vegetable

8) Discuss the importance of good nutrition both at home and in the woods.

Evaluation Activity

Ask students to plan a meal and leave out one item (dairy, grain, whatever).
Read the students incorrect menus aloud, and ask the group to identify the problem with each meal plan and correct it.

FOODS FOR THE TRAIL

Objective

Students will learn the necessary characteristics of trail food and learn several trail menus.

Transferable Learning

Students will develop their practicality and common sense, and review their knowledge of nutrition and proper eating habits. (con't.)

(con't.)

Materials

Dried fruit, freeze dried foods, powdered drinks, canned fruit, fresh vegetables, jar of fruit drink, egg carton, potato chips, pencil and paper.

Procedure

1) Briefly discuss meals, the pleasure of eating *vs* the need to eat, and the importance of eating while outdoors. Review fats, carbohydrates, and proteins from the lesson "You are what you eat".
2) Hold up each food item that you brought, and talk with the class about bringing it hiking: Is it light or heavy? Will it break? Squish? Provide nourishment?
3) Brainstorm a list of qualities necessary of trail foods: won't spoil, brief cooking time, light weight, inexpensive, tastes good, nourishing.
4) Show students sample trail menus and discuss palability, cooking time, nourishment, etc.

MENUS

Breakfast		Lunch	
hot cereal	pancakes with	crackers	flatbread
milk (powdered)	butter and brown sugar	cheese, peanut butter	tuna fish or sardines
raisins	tang	dried fruit	peanuts, dried fruit
tang	cocoa, tea	lemonade	kool aid

Dinner		Snacks	
macaroni and cheese with carrots	lentil stew with carrots and onions	sunflower seeds	lemonade
chocolate pudding	fig bars	gorp	crackers
milk, tea, cocoa	milk, tea, cocoa	slim jims	

5) Brainstorm with students good trail foods for dinner: rice, noodles, spaghetti, salami, tuna, cheese, etc.
6) Ask students in small groups to plan a one day menu for the trail.

Evaluation Activity

Review the menus that the students prepared, and rate them 1 - 10 for each item:

1) Nourishment and nutrition
2) Pack-ability
3) Convenience
4) Tastiness

EXPEDITION ETIQUETTE : Rules and Expeditions

Objective

Students will review and understand the rules and procedures for good expedition behavior.

Transferable Learning

Students see that there are reasons and consequences for rules, and that rules serve a purpose.

Materials

Copies of rule list, a fictitious story of an expedition.

Procedure

1) Explain that there is a specific and important reason for each rule, and that students are expected to know and to abide by the rules.

2) Go over the following rules, and explain the reason for each one:

a) Stay with the group - leave only with two other people after informing instructor.
b) No students are to go into stores or restaurants.
c) No smoking in state vans, near equipment, near stove fuel, while participating in activities or tasks.
d) No drugs, pot, or alcohol.
e) No fighting.
f) No sex.
g) Show respect for private property, fences, animals - stay on trail.
h) Leave the vans clean.
i) Do not run - W.S. will get students out if they want to leave.
j) Eat three meals a day.
k) Do not litter (includes matches and cigarettes).
l) Do not carve trees or break limbs.
m) Don't kill animals.
n) Use only old fire scars for fires.
o) Don't allow *any* food or soap in streams or lakes.
p) Never go in water without instructor between students and over waist deep water.
q) Bury all bodily wastes more than 150 feet from water.
r) Listen to and follow all rules for specific activities such as climbing or canoeing.
s) Be willing to try.
t) No bumming cigarettes from others.
u) No knives on course larger than pocket knife - no sheath knives.
v) Students must wear shoes at all times - even when dipping.

Evaluation Activity

Read to students the following story, and ask them to catch the rule infractions as the story proceeds:

The crew woke early in the morning, and prepared for their day's hike over Mt. Everett. As Jim woke slowly in his tent, he lit a cigarette and looked over the valley below.

"Jeez," he thought, "I never knew that there was all this wilderness in Connecticut."

Jim got dressed and headed outside to help with breakfast and pack up his gear. When he finished tying on his sleeping bag, he pulled a limb off a small ash tree to use as a walking stick, and trimmed the end with his sheath knife.

"This sure is a nice hiking stick," he thought.

Just then breakfast was served, and Jim went over to have some oatmeal and then help clean up the pots. As he washed the pots in the stream, he and Patty discussed the day's route.

"We're going to hike right by Cornwall Bridge," said Patty. "I'd love to buy some cigarettes."

"Don't even try," said Jim, "you know the rules."

Three infractions, rules c, l, o.

MAP READING

Objective

Students will learn to distinguish North, South, East, and West, will learn to use a map legend, and will learn to follow verbal instructions on a printed map. (con't.)

(con't.)

Transferable Learning

Students will increase their knowledge of earth sciences, will practice following directions, and will see the practical value of listening and learning.

Materials

Blackboard and chalk, USGS chart of map symbols, topographic maps, road maps of the state, compasses.

Procedure

Part I

1) Ask students to explain to you the directions North, South, East, and West. Ask them to point to North. Ask them to figure out N, S, E, and W.

2) Disbribute graph paper and ask them to place their pencils on a top middle point of the graph. Ask them to follow these instructions:

1. Move your pencil 3 boxes East drawing a line as you do so.
2. Move 2 South
3. Move 1 West
4. Move 1 South
5. Move 2 East
6. Move 4 South
7. Move 1 West
8. Move 3 North
9. Move 1 West
10. Move 4 South
11. Move 1 East
12. Move 4 South
13. Move 1 East
14. Move 1 South
15. Move 2 West
16. Move 4 North
17. Move 1 West
18. Move 4 South
19. Move 2 West
20. Move 1 North
21. Move 1 East
22. Move 4 North
23. Move 1 East
24. Move 4 North
25. Move 1 West
26. Move 3 South
27. Move 1 West
28. Move 4 North
29. Move 2 East
30. Move 1 North
31. Move 1 West
32. Move 2 North

If students have followed directions they will have made a robot.

3) Next, distribute road maps to the students. Ask them to figure out how to drive from Hartford to Litchfield, Litchfield to Cornwall, etc. Have them explain verbally the routes to follow using the terms N, S, E, and W. Use several examples.

Part II

1) Using a USGS chart, review various map symbols with the students, and discuss the need for legends.

2) Distribute the topographic maps, and play a "who can find the ..... (foundation, swamp, bridge, etc.)" type game.

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3) Continue to review north, south, east, and west with the topographic maps. ("Black Lake is to which side of Bear Mtn?" "North!")

4) Quiz the students on the symbols by asking them to draw the symbols on the blackboard as you read them off a list.

Evaluation Activity

Judge the students' learning by giving them five - six sets of direction to a specific point. ("Take Route 202 North to Harwinton, go east on Route 154, stop near the small swamp.") Use both topographic and road maps; they should finish at the correct spots.

INTRODUCTION TO THE COMPASS

Objective

Students will learn the parts of a compass, the meaning and use of a bearing, and how to find a direction.

Transferable Learning

Students will practice the patience needed to use a piece of technical equipment, will use geometry knowledge, and visualize distance and direction.

Materials

Compasses (one for every two students).

Procedure

1) Distribute the compasses, and ask students to face north. They can try to use the compass, or use their intuition to determine north. Review north, south, east, and west.

2) Ask them to put their compass into their pockets. Discuss the number of degrees in a circle, in a right angle, in a straight line, etc.

3) Play a Simon Says game: Turn 90°, turn 270°, turn 180° from their origin, north. Emphasize turning clockwise, and each time question the direction they are facing. Emphasize origin.

4) Using the compass again, explain its parts: base plate, housing, magnetic needle, direction arrow. Emphasize that *the red needle points north.*

5) Teach the students how to orient the compass and themselves to face north. (Line up the "N" on the housing with the direction arrow. Now put the back end of the base plate against your belly, and turn your body in a circle until the red needle points to the "N" on the housing, then look forward to "north").
Review this procedure by having the students spin the housing on the compass, trade compasses, and re-orient themselves.

6) Ask students to study the housing on their compass, and find a series of degrees: 60°, 180°, 210°, etc. Have them point in that direction.

7) Introduce the term *bearing*, a line from the center of the compass out through space, determined by a number of degrees from the origin, North.

8) Ask students to find bearings of 90°, 85°, 300°, etc. Teach them to do this by rotating the direction arrow to match the number of degrees, putting the compass against their belly, and turning themselves until the red needle points to "N".

9) Emphasize
   a) match the degrees on the housing to the direction arrow on the baseplate.
   b) baseplate against stomach.

(con't.)

c) rotate until the arrow points to "N".
d) travel in the direction of the arrow.

Evaluation Activity

Ask students to call out a bearing, and have the group face that direction. In addition, a short orienteering course reviews and evaluates students learning of compass skill very well. (See Chapter IX, "Enrichment Activities".)

TOPOGRAPHIC MAPS : Contour Lines and Review of Symbols

Objective

Students will learn to read contour lines and will be able to visualize the terrain the lines describe.

Transferable Learning

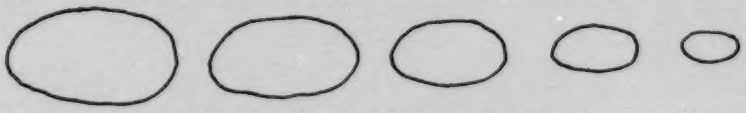
Students will practice following directions, increase their knowledge of earth sciences, and practice visualizing from printed materials to actual shapes and objects.

Materials

Large potatoes, knives, pencil and paper, topographic maps.

Procedure

1) Introduce contour lines. Explain that they help map users to visualize the *terrain* (define terrain) and make plans accordingly.
2) Discuss the difficulties of drawing three dimensional objects in two directions. Use a cube as an example.
3) Explain to students that they will show on paper the shape of a potato.
4) a) Cut each large potato in half lengthwise, and give each student half.
   b) Ask the students to trace the outline of their potato onto paper.
   c) Discuss the safe use of knives, then ask students to slice their potato into five lengthwise slices:



   d) Have students trace each slice inside of their first slice, resulting in a drawing somewhat like this:

   e) Discuss the resulting drawing, and show students a similarly-shaped hill on a topographic map.
   f) Explain valleys, ridges, etc., and use an appropriately carved potato if necessary.
   g) Point to various sections of the map, and ask students to describe the terrain.

Evaluation Activity

Draw several lines across a map that traverse hills, valleys, fields, etc. Number the lines. Ask students to imagine walking a particular line (#2 or #3) and describe the terrain.

BACKPACKING AND HIKING V

You cannot stay on the summit forever, you have to come down again. So why bother in the first place?
Just this: what is above knows what is below but what is below does not know what is above.
One climbs, one sees, one descends, one sees no longer but one has seen.
There is an art of conducting oneself in the lower region by the memory of what one saw higher up. What one can no longer see, one can at least still know. - *Rene Daumal*

BACKPACKING AND HIKING

A one day hike or an overnight backpack serves as the springboard for all other outdoor experiences. During these adventures a group has the opportunity to put into action 75% of the skills needed in any outdoor experience: good expedition behavior, basic camping skills, wilderness navigation, and first aid and safety. When your group later heads out to rock-climb, canoe, or cross-country ski, these same skills will all be used again. A backpacking trip teaches and reinforces these skills before the more complex canoeing or rock-climbing experience.

Backpacking also provides teachers with a capsulized opportunity to observe and counsel. Students don't leave their problems at home when they hike or bushwack; their behaviors and attitudes march right along with them. Your "captive audience" learns new behaviors through your insistence on responsibility, your facilitation of counseling groups and your encouragement and support.

ADDING INTEREST

Some people complain about the tedium of hiking; one hill begins to look like the next and really, after one or two trees, haven't you just about seen them all? Kids, particularly, can feel bored with non-stop hiking. One must muster up a good supply of self-discipline to stay with a full day of backpacking.

There are lots of ways to spice up a hiking trip. There are quite a few ideas in Chapter IX, "Enrichment Activities". We particularly like solos and service projects, be they brief or lengthy, as they provide students with an opportunity to see themselves in new roles. Two of the lessons contained in Chapter IX, an orienteering course and a bushwack, are excellent ways to creatively review and use students' skills with a map and compass. In Chapter XII, "Logistics", you will find an itinerary (schedule and plan) for a one day course that mixes hiking, a review of skills, and enrichment activities.

Hopefully you will be able to use the ideas contained in the chapters "Prerequisites", "Enrichment Activities", and "Initiative Problems" to strengthen your one - five day overnight adventures, be they canoeing, backpacking, or otherwise.

Behavioral Objectives
Backpacking and Hiking

Each student will complete two out of three overnight hiking trips.

Given a five point orienteering course, each student will accurately follow four of the five bearings.

Given a topographic map with a starting point and ending point marked, each student will give the bearing needed to procede from point A to point B.

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RESOURCES

The Complete Walker, Colin Fletcher, Unopf, New York, New York, 1974.

Be Expert With Map and Compass, Bjorn Kjellstrom.

State Index to Topographic Maps, USGS, Map Sales, Building 41, Denver Federal Center, Denver, Colorado 80225.

Reading USGS Maps, Government Map Sales, Building 41, Denver Federal Center, Denver, Colorado 90225. Free Handout.

Always in big woods when you leave familiar ground and step off alone into a new place there will be, along with the feelings of curiosity and excitement, a little nagging of dread. It is the ancient fear of the unknown, and it is your first bond with the wilderness you are going into. You are undertaining the first experience, not of the place, but of yourself in that place. It is an experience of our essential loneliness: for nobody can discover the world for anybody else. It is only after we have discovered it for ourselves that it becomes a common ground and a common bond, and we cease to be alone.

- Wendell Berry, The One Inch Journey

CAMPING EQUIPMENT

Objective

Students will learn the use of different kinds of camping equipment.

Transferable Learning

Students increase their awareness of the specificity of equipment, and develop verbal and presentation skills.

Materials

Fuel bottle, camp stove, pots and lids, pot grips, alpine cord, repair kit, tarp, bug repellent, folding saw, folding shovel, compass, jackknife, topographic map, flashlight, freeze dried food, water bottle, ensolite pad, sleeping bag.

Procedure

1) Divide the students into two teams.
2) Lay out the equipment in the center of a room.
3) Give each team two minutes (send the other team outside the room) to look over the gear and discuss it.
4) Have the two teams sit on opposite sides of the room. Teams alternately send one player to the center to pick out a piece of equipment, identify it, and give its uses. Each correct explanation gets one point.
5) If a player mis-explains a piece of equipment, no point is scored. The opposite team then gets a chance to answer the question which was mis-answered.
6) After an explanation is finished, the opposite team may earn a point by adding information to the explanation.
7) Highest score wins.
8) The teacher elaborates on the use and care of the equipment as the game progresses.

Evaluation Activity

Pass out the equipment to the group, two or three items for each person. Ask the group to sit in a circle. Go around the circle and ask each person to thoroughly explain his/her object.

HOW TO PACK A PACK

Objective

Students will learn the correct way to pack and carry a backpack.

Transferable Learning

Students will see that careful planning saves time and loss of gear, and that the human body has a center of gravity and a center of balance.

Materials

A correctly packed pack, filled with clothing and gear, a backpack stuffed with clothing but weighted high and to the outside with two bricks.

Procedure

1) Introduce the lesson as a discussion on carrying and using a backpack.
2) Ask several students to try on both packs and walk around. Ask them to explain how the packs feel.
3) Discuss center of gravity and balance in relation to carrying a pack.
4) Unpack the correctly packed pack, explaining why each item is where it is. Discuss carrying water, fuel, poncho, sweater, etc.
5) Distribute all the gear to the students.
6) Pass the pack around the group (seated in a circle) and have each one add his/her item to the pack correctly.

Evaluation Activity

Distribute a dittoed sheet with a large drawing of a pack with pockets, and a list of gear. Ask students to label the pack and show where each item belongs.

DETAILS (and Review) OF A TOPOGRAPHIC MAP

Objective

Students will learn the details of a topographic map. (altitude, location, colors, year of survey, degrees and minutes) and will review contour lines and symbols. (See Chapter V, "Prerequisites")

Transferable Learning

Students will use the concept of scale, and will learn map skills to use with other maps.

Materials

Topographic maps (one for every two students).

Procedure

1) Have students look over a topo map, and review symbols and contours. Question students as to name of map, largest town, seasonal streams, swamps, etc.
2) Show students how to determine the area covered by the map within the state, adjacent map names, and year surveyed. Discuss significance of survey date. (con't.)

(con't.)

3) Discuss colors: brown, blue, green, white, purple.

4) Review contour intervals and how to read the numbers given on the contour lines.

5) Explain degrees and minutes shown on sides of map.

Evaluation Activity

Ask each student to think of two - three questions related to the map. Have each student pose a question to the group and evaluate the response. Encourage a diversity of questions.

WORKING THE MAP AND COMPASS TOGETHER

Objective

Students will learn to orient a map, and will learn to take a bearing between two points on the map and use that in the field.

Transferable Learning

Students learn to concentrate, and to abstract from a symbolic representation (the map) to a tangible (the field).

Materials

Compasses and topographic maps, one for every two students.

Procedures

1) Discuss with students the need to use a map and compass together.

2) Teach students to orient map to magnetic north using arrow on map. Briefly explain magnetic and true north.

3) Show students how to take a bearing between two points on the map using the compass edge. Emphasize the importance of having the arrow point in the correct direction, and of orienting to magnetic north.

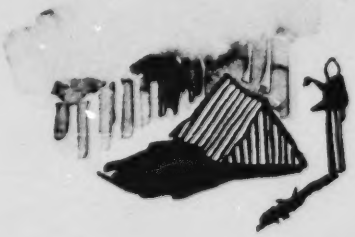
4) Take the bearing from the map and have the students face the correct direction.

5) Discuss traveling a bearing. Explain the leapfrog technique of bushwacking, and importance of keeping a straight line.

Evaluation Activity

If at all possible, follow this lesson with a bushwack to immediately use the skill. (See Chapter IV, "Enrichment Activities").

> *I went to the woods because I wanted to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived.* - *Henry David Thoreau*



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FOOT CARE

Objective

Students will learn to care for their feet on a hike.

Transferable Learning

Students will learn to respect their own body and that it is possible and valuable to prevent health problems.

Materials

Socks and boots, scissors, moleskin, gauze, adhesive tape, antiseptic.

Procedure

1) Ask students to sit in a circle.
2) Ask students: Why do blisters form? Why does your body swell? Discuss bodily protective reactions.
3) Explain why and how blisters form (friction, folded sock or boot lining, small stone).
4) Discuss the importance of one's feet while hiking a long distance.
5) Using moleskin, demonstrate to students how to relieve pressure on a blister.
6) Show how to pop a blister, and the importance of keeping it clean.
7) Discuss changing socks, airing feet, using foot powder.

Evaluation Activity

Ask students to explain to you why blisters form, how to prevent them, and how to care for them.

Comments

This lesson is best taught about a half mile into a hike as someone will probably have a hot spot or foot problem, and the need for the lesson will be immediate.

Harlem -
Harlem if you were to know the joys and sorrows I have felt within this vast and beautiful country, you would welcome me back with open arms. But I know you are selfish, that your heart is cold to the cries of your children.
So beware Harlem, with your structures of dirt. I'm coming back to conquer, for I have seen fear and we have become one. And I have felt sorrow and pain and joy at the hands of the greatest of all powers - nature. Harlem you are nothing but man's inhumanity to man and I will be the victor for determination and will are on my side and I will not be overcome for I am real and alive and you are dead.

- OB Student

PADDLING VI

PADDLING

White water canoeing competes with rock climbing as our students' favorite activity. Most students find paddling to be extremely exciting, demanding, and anxiety-provoking. Team work, quick decision making, fast action, and rushing water combine to make paddling taxing as well as engaging.

We begin paddling on indoor swimming pools. Next we move to small, quiet ponds and finally progress to the moving rivers.
plorations on small, quiet ponds and finally progress to the moving rivers.

White water canoeing is probably our most dangerour activity. The frigid water temperatures make hypothermia a serious concern. In addition, moving water is incredibly powerful, much more powerful than the average non-paddler realizes. Water has weight, momentum, and force, and can break canoes or submerge paddlers without slowing down. It is crucial that those students who go paddling be motivated, willing to follow rules, and properly trained. With careful planning and good training paddling can be very safe and manageable.

POWERFUL TEACHING TOOL

Canoeing has several unique aspects that combine to make it a powerful teaching tool. The first of these is its inevitability and inflexibility. Students who often back out of difficult situations at home or at school find themselves unable to do that as they head around the bend of a river into a set of rapids. They are suddenly on their own and in charge, and they usually handle the challenge beautifully. The students finish feeling proud, accomplished, and elated.

Secondly, canoeing involves a substantial amount of partnership and teamwork. Students learn very quickly to communicate with their canoeing partner, and are forced to be specific, concrete, and direct with each other. "How do I know when you want me to turn right?" "Shall we go right or left?" "Could we stop by that island so I can take a picture?" For many of our students this is a new experience.

We try to capitalize on the teamwork element by discussing the teamwork involved in other human relationships: husband/wife, boyfriend/girlfriend, employer/employee, etc. Our students begin to learn that respect and openness are essential elements of a working relationship, but that friendship is not. They learn that they can get along with anyone if they want to do so.

Because canoeing is very anxiety provoking, we prepare our students thoroughly before paddling. The speed, unfamiliar medium, and large amount of responsibility can paralyze students unless they are ready. We sometimes begin with lessons as basic as the construction of life jackets and helmets, and then proceed to swimming pools to teach students about the buoyancy and stability of a canoe. After these lessons we paddle in a pool and only then proceed to a pond or lake.

LAST WORDS

Once again, we caution teachers to undertake a river expedition only if they are competent paddlers and instructors themselves. Water accidents happen very fast, and water is a very dangerous medium. We urge teachers to follow safety procedures carefully (See Chapter XIII, "Safety") and observe students prior to taking on the challenges of moving water.

Behavioral Objectives
Paddling

Each student will correctly identify six of these seven parts of a canoe and paddle: blade, thwart, gunnel, painter, bow, stern, handle.

While paddling on a lake, each student (with a partner) will be able to paddle in a figure eight formation while seated in either the bow or stern position.

Each student will interact sufficiently with his/her canoeing partner to enable him/her to complete 100% of a six point slalom course.

RESOURCES

Basic Canoeing, American Red Cross, Canoeing, 1963.

Canoeing, American Red Cross, Doubleday and Co., New York, New York, 1977.
The Complete Wilderness Paddler, Davidson and Rugge, Unopf, New York, N.Y., 1976.
Basic River Canoeing, McNair, R.E. American Camping Association, Inc., Indiana, 1972.
AMC White Water Handbook, Urban, J.T., Appalachian Mountain Club, Massachusetts, 1976.

Fear is a boundary; a seemingly insurmountable limit to the expansion of one's being. Those who succumb to their fears are forever limited in their being; in their knowledge of the world, and more important, in their knowledge of themselves; doomed forever to mediocrity. I, and I hope all who are here, realize this, and more so, realize that we have an obligation to ourselves to grow from the day we are born to our last breath upon this earth. In growing, we expand our limits, increasing our freedom by augmenting the number of things we are both knowledgable of and capable of accomplishing. If not for fear, perhaps all men would be great, but it does exist - ever present in our lives. Only like us who dare face it - to win or perhaps to lose; in the end it does not matter, for we have tried and we are on the path to greatness . . .

- Outward Bound Student (after solo)

CONSTRUCTION OF HELMETS AND LIFE JACKETS

Objective

Students will learn of the effectiveness and construction of life jackets and helmets.

Transferable Learning

Students will learn that protective devices are effective and will cooperate with others.

Materials

Bulletin boards, posterboard, stapler, thumbtacks, index cards, available swimming pool (best) or buckets of water, string, weights, various helmets and life jackets, styrofoam "heads" (as used for wigs or hats), crayons and pens.

(con't.)

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(con't.)

Procedure

1) Divide students into groups of three.
2) Discuss the purpose of helmets and life jackets with the group. Show students the correct way to wear each and why it must be worn that way.
3) Give each small group a life jacket or helmet.
4) Ask each group to prepare a display about their item. They must discuss its effectiveness, materials, etc.
5) Encourage students to test their item. Helmets can be placed over the styrofoam heads and tested with rocks, blows, or hammers. Life jackets may be floated in the pool with weights.
   * These activities must be well supervised and disciplined!
6) If possible, allow students to dismantle helmets and life jackets in order to study the materials.
7) Help students prepare their displays using posterboard, pens, etc.

Evaluation Activity

Ask each group to present to the large group its findings about the life jackets and helmets. Discuss with the group the importance and usefulness of the items.

CAPSIZE DRILL

Objective

Students will learn to handle a capsized canoe.

Transferable Learning

Students will learn not to panic in emergencies and will learn about flotation equipment.

Materials

Use of a swimming pool, three canoes, life jackets for students and teachers, whistle.

* A certified water safety instructor or life saver should be present.

Procedure

1) Before using the pool, review the pool-related rules and expectations you have of the group.
2) Submerge two - three canoes at the deep end of the pool.
3) Students choose partners, and three pairs of students enter the shallow end of the pool.
4) On signal, each pair will race to the deep end and bring their assigned canoe back to the shallow end of the pool.
5) Following the race, discuss the capsized canoes. Emphasize the importance of staying with the submerged boat and why.
6) Have two instructors demonstrate how to paddle a submerged canoe. (Sit in the boat and paddle with hands.)
7) Next, the two instructors empty the canoe and demonstrate a capsize:
   a) tip the boat
   b) stay clear of the boat until it is flipped
   c) pull or paddle the boat to the other side of the pool.
8) Students repeat the same drill, one pair at a time.

Evaluation Activity

Question the students as to the procedures for dealing with a capsized boat.

PADDLING ORIENTATION

Objective

Students will learn the parts of a canoe, parts of a paddle, and safety rules for canoeing.

Transferable Learning

Students will learn to respect their own physical well being, will further their recreational interests, and will learn to work with others.

Materials

2 canoes, 2 paddles, index cards, copies of canoeing rules (see Chapter XIII, "Safety"), masking tape.

Procedure

Part One

1) Make two sets of cards of the terms for the various parts of the paddle and canoe: blade, shaft, handle, seat, bow, stern, thwart, gunnel, bow plate, stern plate, painter, flotation.
2) Divide the students into two teams and set up the teams, canoes, and paddles for a relay race.
3) Distribute one set of cards to each team. The students on each team may discuss their cards.
4) On "go" each team sends its first member up to the equipment. S/he takes a piece of tape and tapes his/her card to the proper part of the canoe or paddle.
5) Each team continues to send one person with one card to the equipment until completed.
6) Review and explain the placement of the cards with the students.
7) The team with the highest number of accurately placed cards wins.

Part Two

1) Distribute the copies of the rules to students.
2) Review the rules and give the reasons for each one.

Evaluation Activity

Pose these questions to the group:

1) When do you wear a life jacket?
2) What is *pinning*?
3) Where is the bow plate?
4) Why do you need a painter?
5) Where do your hands hold the paddle?
6) What is the *sweep canoe*?
7) Why is there flotation in the canoe?
8) If you flip over, do you stay upstream or downstream of the canoe?

The old hakota (Sioux Indian) was wise. He knew that man's heart away from nature becomes hard; he knew that lack of respect for growing living things soon led to lack of respect for humans too. So he kept his Youth close to nature's softening influence.

-Touch The Earth

CANOE STABILITY

Objective

Students will learn the most stable way to sit in a canoe, and will understand why.

Transferable Learning

Students will increase their knowledge of force, balance, and centers of gravity, and will work with a partner.

*Note: One instructor should be a certified lifeguard or water safety instructor.

Materials

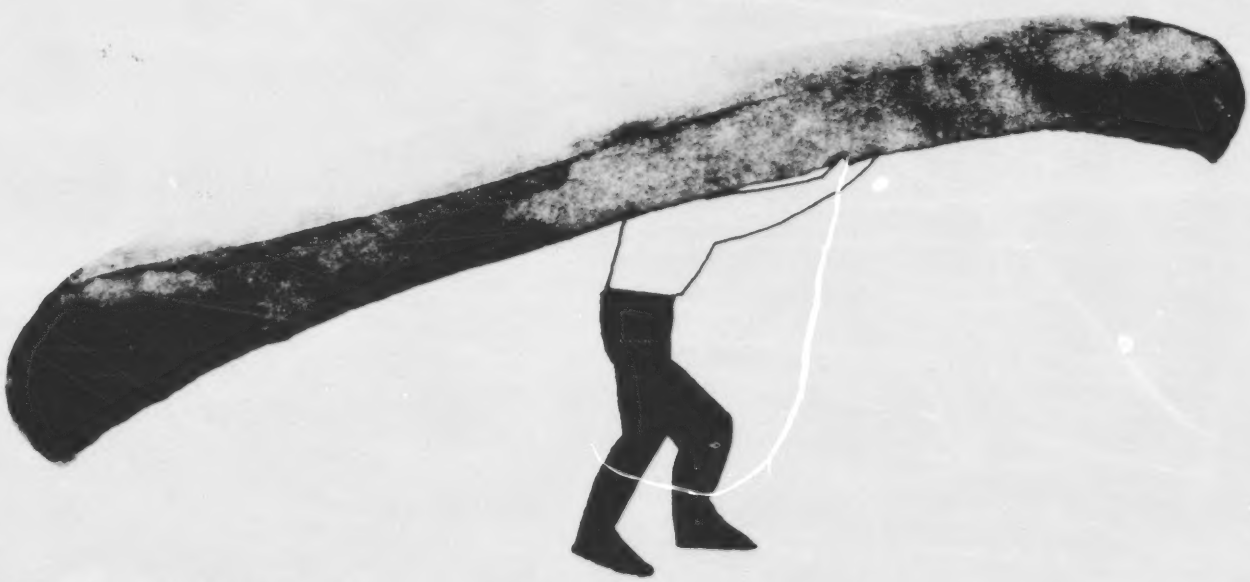
Swimming pool, life jackets, two canoes.

Procedure

1) Review the rules and expectations appropriate to pool use before using the pool.
2) Discuss with students the sizes of different boats and their stability. (sailboats, barges, rowboats, etc.)
3) Have two instructors kneel, then sit, and then stand in a canoe as they rock it (trying not to tip over.) Ask students to watch the canoe.
4) The instructors now sit in the canoe, rock it over, and pull the canoe to the side of the pool.
5) Discuss stability with the students, review capsize procedures.
6) Ask the students to work in pairs and experiment with the stability of the canoe. (One canoe at a time, keep the canoe in the center of the pool, students must wear life jackets, no horseplay.)

Evaluation Activity

Review the concepts of stability and center of gravity. Discuss with students the proper position for flat water and white water paddling. Finally, ask students to number these characters from lowest to



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highest center of gravity:

1) Charles Atlas
2) A fat man on a bicycle
3) A five year old on a "big wheels" tricycle
4) A VW bus
5) A Porsche
6) A cowboy on a horse.

POND OUTING I

Objective

Students will learn to paddle a canoe on flat water.

Transferable Learning

Students will learn to work with a partner and will increase their recreational interests.

Materials

Canoes (1 for every 2 people), life jackets (1 per person), paddles, (3 for every 2 people).

Procedure

1) With students seated in canoes on shore, teach and practice the forward stroke, forward sweep, backward stroke, backward sweep.
2) Briefly review safety and behavioral rules with students.
3) In a "follow the leader" fashion, paddle around the pond.
4) En route, have students complete several 360° turns to the right and left.
5) Halfway through, have students switch bow and stern positions.
6) Allow time for leisure paddling.

Evaluation Activity

Play a "follow the leader" game and make a big figure eight. Watch students to see how they are progressing.

POND OUTING II : Introduction to White Water Maneuvering

Objective

Students will learn the strokes used in white water paddling.

Transferable Learning

Students will learn about force and direction, will work cooperatively with others, and will increase their recreational interests.

Materials

Canoes, life jackets, and paddles, weights, alpine cord, and empty bleach bottles.

Procedure

1) Tie together a bleach bottle, a length of cord, and a weight to make a buoy. Make four - ten of these floats. (con't.)

(con't.)

2) Place the floats in the water to form a slalom course/obstacle course type arrangement. (It's helpful to paint numbers or colored stripes onto the bottles to help in identifying the different bottles.)
3) On shore, teach students the draw, cross draw, pry, and cross-bow rudder strokes.
4) Describe to the students the route you want them to follow: "Between floats #1 & #2, around #3, figure eight #4 & #5, etc."
5) Set the students off onto the slalom course and time each canoe's run.
6) Repeat the course in reverse, or design a new pattern.
7) Allow students some time to practice.

Evaluation Activity

Have students pair up and paddle along as a group. Call out "circle left!" or "circle right!" or "spin left!" or whatever. Watch their progress to see how each pair performs.

WHITE WATER CANOEING

Objective

Students will paddle a river with Class I - II rapids.

Transferable Learning

Students will develop self reliance, partnership, willingness to take risks, and respect for water. They will increase their understanding of force and motion.

Materials

Canoes, life jackets, helmets, paddles, whistles, (for instructors), throw rope, first aid kit.

Procedure

1) At least one of the instructors should know the river, its rapids, hazards, bridges, take-out points, etc.
2) Review the safety procedures with students. Emphasize the importance of the lead and sweep canoe, keeping upstream of a flipped boat, and not standing in the river. Check helmets and life jackets.
3) Procede to paddle the river. Paddle one stretch of white water at a time, wait for all students to finish before proceeding. Remind students to kneel through the rapid sections. Keep the group together.
4) On a flat stretch of river water, prepare students for eddy turns and ferrying.
   a) Have students paddle upstream, parallel to the shore. Ask them to stop paddling and assess their motion. Next, ask them to turn perpendicular to the force of the water, and watch their motion in contrast to the shore. Have one - two canoes try at a time.
5) Introduce and demonstrate ferrying. Show students how to maintain the proper angle. Give students time to practice ferrying.
6) Find a large eddy in water of moderate speed. Demonstrate an eddy turn, emphasize proper leaning and timing. Give students time to practice.
7) Encourage students to be brave, confident in themselves, on-their-toes, thoughtful, etc., etc. as they paddle.

Evaluation Activity

Debrief canoeing, and encourage students to take pride in themselves and to appreciate others for their paddling and accomplishments.

ROCK CLIMBING VII

ROCK CLIMBING

The thought of rock climbing makes most students' stomachs tighten, some out of fear and the rest from excitement and anticipation. Students perceive rock climbing as a thrilling, dangerous, daredevil sport for the likes of Clint Eastwood and John Wayne. They imagine Hollywood-style rappells down granite cliffs and lots of clanging and exotic equipment. We've found that many students grow to really enjoy rock climbing, and soon come to see it as the exciting, stirring, and demanding sport that it is.

STUDENT BENEFITS

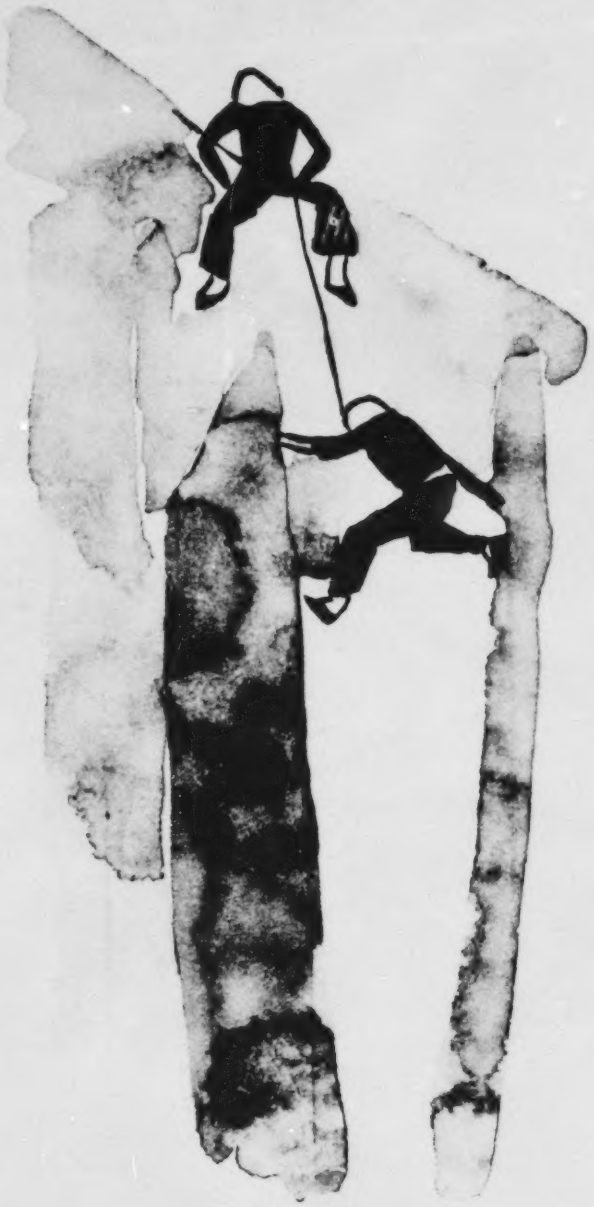
For most of our students, rock climbing is the most dramatic, challenging, and meaningful part of our curriculum. It is during rock climbing that many of our students open up, become vulnerable, and acknowledge their own strengths and weaknesses. Rock climbing is also sheer delight and fun for almost all of our students, who feel talented, graceful, and confident as they dance up the rock face, choosing holds deliberately and carefully.

Many students are initially overwhelmed by the demands placed on them during climbing. Belaying and being responsible for another person's well-being are very frightening to them. Being 100% responsible and in charge of themselves is also frightening, particularly when they find themselves thirty feet off the ground with no one else to rely on.

But these are precisely the reasons why we feel rock climbing is an important learning experience. Support from others, self-reliance, courage and risk-taking, caring, trust, and responsibility all become clear-cut issues and concepts when illustrated by the interactions that take place at the cliff. We use these interactions as metaphors, and try to draw on them at later moments when we encourage students to persevere, to face problems, and to try.

STAFF RESPONSIBILITIES

As staff, however, we have some altogether different responsibilities. We are responsible for the safety and well being of our students as they



choose routes, belay, climb, and rappell. It's a tremendous responsibility, one not to be taken lightly.

We strongly urge teachers with little or no climbing experience who want to rock climb with kids to do one of these things: Hire an experienced clim-

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ber, enroll in a series of climbing lessons, or pass up the desire to climb. It's easy to make mistakes in setting up climbs or tying knots, and unless one is confident and experienced, it is irresponsible to take students climbing. Good training on the rocks is becoming more and more accessible these days, and is an absolute necessity.*

MANAGING A CLIMBING SITE

For these teachers who have the skills to take kids rock climbing, it is important to recognize that climbing with twelve students is quite different than climbing on Saturday afternoon with one or two friends. A climbing site can be crazy, and steps must be taken to keep it under control. We offer a few tips:

1) Make sure students know the safety rules, and want to follow them. (safety rules to follow)
2) All climbing sites need at least two instructors: one at the top of the cliff to supervise belays, one at the base to check students' knots and support students while they climb.
3) All students belays should be supervised and seconded by a competent adult. At the Wilderness School our policy is to second a belay by sitting next to the student belayer on the side opposite their brake hand and assuming a full belay position.

As in any other outdoor pursuit there are important safety considerations for students and staff to know and to follow. We always explain these rules carefully and insist that they be followed. Although they are not necessarily appropriate for all programs, this is a useful summary of rules.

SAFETY CONSIDERATIONS

1) Each belay point will be supervised by competant staff.
2) All students knots must be checked closely by instructors.
3) Supervising staff will be adequately anchored at top of cliff.
4) Helmets must be worn at all times on climbing site by students, except when away from cliff for lunch, group, etc. Be sure they are adjusted properly.
5) No students will remain on top of cliff unless belaying or finishing a climb.
6) Students ar base of cliff will sit away from bottom of climb.
7) Climbing procedures will be reviewed before each day of climbing.
8) Climbing signals must be uniform throughout each course.
9) Climbing staff should have pocket knife on climbing site.
10) Loose clothing and hair tucked in, jewelry removed for climbing and rappelling students.
11) First Aid and evacuation gear will be present on all climbing sites.
12) When bouldering students must climb no higher than 10 feet and be spotted by at least one instructor.
13) Spotting must be instructed properly: hands up, catch upper body.

THE LESSONS

The lessons contained in the next pages do not attempt to teach rock climbing techniques. Once again we encourage anyone wanting more skills or information to contact a local climbing school, outdoor program, or equipment shop for more training. For those who are competent, these lessons serve as a guide to teaching climbing skills in a logical, sequential fashion.

Behavioral Objectives
Rockclimbing

While seated in a belay position with a rope, each student will show and explain to an instructor the belaying process, mentioning taking up the rope and stopping a fall.

While at a climbing site, each student will complete at least one climb and one belay.

While at a climbing site, each student will verbally support (watch and talk to) at least one classmate as s/he climbs.

RESOURCES

Basic Rockcraft, Royal Robbins, LaSiesta Press, California, 1971.

Advanced Rockcraft, Royal Robbins, LaSiesta Press, California, 1973.

Ropes, Knots, and Slings for Climbers, Wheelock, LaSiesta Press, California, 1967.

Freedom of the Hills, The Seattle Mountaineers, 1972.

*Certification of outdoor instructors is becoming a very important issue within the field of adventure education. The Association for Experiential Education, The American Camping Association, The American Alliance for Physical Education, Health, and Recreation, and other organizations are struggling with competency standards for outdoor instructors. Rock climbing and mountaineering skills are particularly important in these debates as they are among the more dangerous activities. In seeking your own training, be sure to speak with an individual who is both a competent rock climber as well as an experienced instructor in order to assure yourself of good training.

If I Had my Life Over Again

If I had to live my life over, I'd dare to make more mistakes. Next time, I'd relax, I would limber up, I would be sillier than I have been this trip. I would take fewer things seriously, I would take more chances, I would take more trips, I would climb more mountains, swim more rivers, I would eat more ice cream and less beans, I would perhaps have more actual troubles but I'd have fewer imaginary ones - you see I'm one of those people who live seriously and sanely hour after hour, day after day. Oh I've had my moments and if I had it to do over again I'd have more of them. In fact I'd try to have nothing else, just moments one after another, instead of living so many years ahead of each day. I've been one of those persons who never goes anywhere without a thermometer, a hot water bottle, a rain-coat and a parachute. If I had it to do again I would travel lighter, lighter than I have. If I had to live my life over I would start barefoot earlier in Spring and stay that way later in Fall. I would go to more dances - I would ride more merry-go-rounds. I would pick more daisies.

- Nadine Starr, 85 years old
Louisville, Kentucky

INTRODUCTION TO ROCK-CLIMBING

Objective

Students will understand how rock-climbing is done, learn a little of its history, become familiar with the equipment, and learn safety rules.

Transferable Learning

Students will recognize the role that technology plays in changing aspirations and achievements, and will expand their recreational horizons.

Materials

A gold line rope, a perlon rope, carabiners (locking and unlocking), nylon slings, helmets, a figure eight descender, copies of safety rules.

Procedures

1) Give students an overview of the lesson, and encourage them to ask questions or express fears without hesitation.
2) Explain how rock-climbing works: climber, belayer, purpose of rope (not for climbing on), holds on rock face, etc. Ask for questions, discuss falling.
3) Go over equipment. Explain each item's purpose, its strength, and how to care for it.
4) Give a brief history of rock-climbing. Discuss climbing in Europe at the turn of the century, manila ropes and canvas shoes, development of modern chocks and nuts, how climbing changed as technology developed, etc.
5) Discuss climbing accidents and safety. Emphasize need for awareness and concern, relative safety of top rope climbing, importance of safety rules.
6) Review safety rules and review purpose of each rule.

Evaluation Activity

Pose a series of questions to the students (what is a locking carabiner? What is 'belaying'? Why must we wear helmets all the time?) and review their answers.

KNOT TYING AND TYING-IN

Objective

Students will learn to tie three knots: the bowline, simple overhand, and waterknot.

Transferable Learning

Students will practice manual skills and good listening skills.

Materials

A ten foot length of rope for each student.

Procedure

1) Ask students to stand behind you. Explain that it is easiest to learn knots if everyone is facing the same way and using the same hand, and you will turn as you explain so that they can watch. watch.
2) Teach the bowline (around their waists) in the classic "break the window, scratch your belly" method.
3) Ask students to pair up and practice this with each other.
4) Teach the simple overhand knot.
5) Teach the water knot.
6) Ask students to pair up and practice the overhand knot and water knot together. Have students tie the knots around some one else.
7) Have students practice tying knots with eyes closed.
8) Teach students how to tie in to the climbing rope.

Evaluation Activity

Have a relay race with two teams, each racer will either tie or untie a specific knot from around a tree. The instructor calls out "Untie the bowline!" or "Tie an overhand!" for each team member as the race proceeds.

Comments

Although this lesson is brief ("Teach the bowline") is deliberately so, for anyone who cannot tie a bowline him/herself should not - for reasons of responsibility and competence - learn to tie it here.

THE ART OF BELAYING

Objective

Students will learn to belay correctly, and will understand how belaying works.

Transferable Learning

Students will increase their knowledge of physical sciences (friction and force) and will increase their sense of responsibility for others.

Materials

Climbing ropes (one for every two students, if possible), carabiners, open area with some trees.

Procedure

1) Set up several "climbs" (ideally one for every two students). Tie into a tree with a bowline on a bight and leave the free end for the belayer. Stretch the rope across the ground, leaving the other end for the climber.
2) Gather the group together, and teach students to belay. Review brake hand, take-up hand, concept of friction rather than strength stopping the fall, tripod position, position of belay rope, (*over*, not *under* the anchor), process of taking up the rope.
3) Discuss with the students the difficulty of communicating at the cliffs, and importance of accuracy and understanding.
4) Give students these terms: *on belay, up rope, that's me, climbing, climb* and demonstrate their use.
5) Introduce these additional terms: *slack, off belay, belay off, rock, rope, falling, tension* and role play their use.
6) Role play several climbs for students, and review the terms. Ask them to give the signals for the people role playing the climber and belayer.
7) Ask students to pair up and practice belaying at the "climbs". Have them tie in correctly and use the signals. Ask each student to try to catch some "falls".
8) Rotate among the pairs and help the students with their technique and expertise.
9) Each student should play belayer as well as climber.

Evaluation Activity

1) When each student is set up to actually belay for the first time, ask him or her to belay through a rope length with no climber on the other end. This will provide extra practice as well as an opportunity for you to observe his/her skill.
2) Ask two students to role play a climber and a belayer and use 8 of the 10 signals. Have the other students evaluate their accuracy.

TRUST LEANS

Objective

Students will learn to keep their bodies upright and develop their sense of balance and sense of center of gravity.

Transferable Learning

Students will develop gross motor coordination and learn to appreciate their bodies.

Materials

The use of a sturdy wall.

Procedure

Part I

1) Explain to students that you will be doing a series of exercises to develop balance.
2) Ask students to spread out at arm length, facing the wall, about 3 feet back from the wall.
3) Explain and demonstrate to students a stiff fall forward: keep feet slightly apart, body upright, hands held palm out in front of the shoulders. Fall forward and catch your weight with your hands against the wall.

(con't.)

(con't.)

4) Next, take a series of small steps backwards, (away from the wall), each time trying 2 - 3 falls. Emphasize a stiff, upright position.

5) Allow students 5 - 10 minutes to practice.

Part II

1) Ask students to take partners.

2) Ask students to face their partners, palms up as before, 3 feet apart.

3) Partners fall forward, balance in the center with palms together, and then push back to a standing position.

4) Each person then takes a small step back, and the partners try again.

5) Caution partners to both fall to their right side if they slip.

6) Give students a few minutes to practice.

Evaluation Activity

When you introduce rock climbing and bouldering, remind students of their center of gravity and ask them to keep it out and over their feet.

ROCK CLIMBING

Objective

Students will rock climb and will experience the challenge and growth processes of climbing.

Transferable Learning

Students will learn to rely on themselves, take risks, and exercise self control.

Materials

A climbing site, climbing ropes, carabiners, helmets, first aid kit, litter, nylon slings, pocket knife.

Procedure

1) Set up and double check climbs. Set up no more than three climbs for every two instructors.

2) Review safety rules with students.

3) Spend some time bouldering with students. Explain climbing techniques such as use of feet, balance, keeping weight away from the rocks, hand holds, (buckets, finger holds, pinch holds), laybacks, chimneying, jamming, friction techniques, etc.

4) Get students climbing; place students on a variety of climbs that are challenging but will give them a series of successes.

5) Check students' knots and second all belays during the climbing session.

6) Encourage students who are not climbing to verbally support fellow students to complete climbs.

7) Debrief the climbing session, encourage students to take pride in their accomplishments and to validate one another for their successes.

Evaluation Activity

The debriefing session serves as the evaluation activity. Students will hopefully be excited and proud of their climbing. During future climbing sessions, students should be excited about climbing and eager to succeed.

RAPPELLING

Objective

Students will learn the skills and muster up the courage to complete a rappell.

Transferable Learning

Students will learn to pay attention to detail, learn to take risks, and develop self-reliance.

Materials

Three climbing ropes (1 rappell, 1 belay, 1 safety rope), helmets, figure eight descender, pocket knife, gloves (optional), swiss seat, carabiners.

Procedures

1) Set up the rappell; be sure to use different anchors for the belay and rappell ropes. Place the safety rope nearby. Double check the anchors.
2) Give students an overview of rappelling: its place in mountaineering, its dangers, equipment, need for a belay, etc.
3) Teach students the signals for rappelling, *rappell, rappelling, off rappell*, and how they work with the belay signals.
4) Teach students how to tie into a swiss seat and ready themselves to rappell. (Tuck in shirts, hair, remove jewelry, etc.)
5) Demonstrate a rappell on a slight incline.
   a) Tie into swiss seat and set up the belay.
   b) Belayer signals "on belay". Clip figure eight descender onto seat and rappell ropes.
   c) Show the rappell position. Explain the brake hand and balance hand. Show students how to lean into the seat, how to stop, etc. Emphasize:
      - feet shoulder-width apart
      - lean back, body half horizontal
      - balls of feet against rock
      - descend rhythmically; do not bounce or speed
      - use of brake hand.
   d) Rappell and explain as you descend. Demonstrate a "fall" (feet slide out).
   e) Review proper "off rappell" technique at bottom of rappell.
6) Give students an opportunity to try a "practice" rappell on the incline.
7) Place students on rappell. Instructors should be at the base and the top of the cliff. Instructor at the base should hold onto the rappell rope to prevent excess swaying and jumping and to control the students descent in the event of a fall.
8) Debrief the rappell. "Discovery Statements" (see Chapter X, "Debriefings") are good to use.

Evaluation Activity

The debriefing serves as an evaluation. Our goal is not to develop competent climbers and rappellers, but confident individuals willing to learn, to try new things, and to support others in those same processes.

> *It's this simple: If I never try anything, I never learn anything. If I never take a risk, I stay where I am. If I go ahead and do it, it affects how much I continue wanting to do it. When I hold myself back, I trade appearances for the opportunity to find out what I am like.*
>
> *- Hugh Prather*

OUTDOORS IN WINTER VIII

WINTER

By late November or early December, winter has made its coming well known in New England. We begin preparing our students to enjoy the winter winter woods well before the solstice on December 21st.

The winter season opens up an endless variety of activities to our students. In the past years we have taken our students tobogganing, ice skating, ski mountaineering, snow shoeing, down hill skiing, and cross country skiing. We've also lived in rustic cabins heated with wood stoves, built and slept in snow shelters, gone winter camping, and we even once spent a brisk, snowless, moon-filled, winter night exploring a local ghost town and attempting to make contact with the local spirits. We have found that when our students are properly dressed and prepared they come to really enjoy the winter environment. This has opened up a brand new world for them.

We spend a great deal of time preparing students for winter experiences. Our immediate concern is for their safety. We have also thought that possibly some of our students may leave one of our one-day cross country ski lessons and proceed to organize a ski trip with his/her friends. Through this student's exposure to cross country skiing with us, s/he has become an "expert" and may proceed to take the responsibility of organizing and instructing some friends on their first cross country ski experience. Anyone who has spent much time in the winter woods will agree that while it is a very special and beautiful environment, it can also become dangerous and life-threatening if one is not prepared.

For example, a simple day-tour can become a life-threatening situation when, at 3:30 in the afternoon four miles into the forests, a skier breaks a ski and has no way to repair it. If the ski hadn't broken, an hour of easy skiing would have brought the group back to the trail-head. They are now facing a long and frustrating walk, which could easily last into the night, and are facing the possibilities of frostbite and hypothermia. In this example, if the skiers had brought along a spare ski tip or repair kit the broken ski could have been easily repaired and the group could have completed the day tour well before darkness fell.

The following section includes those lessons and experiences we offer in preparation for the winter season and our days outdoors.

The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands during challenge and controversy. -Martin Luther King

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Behavioral Objectives
Outdoors in Winter

Students will correctly identify cross country touring skis and will point out three of these four items: side cut, camber, use of binding, waxing needs.

During a one day ski tour each student will be observed making at least four of these six actions: waxing his/her own skis, helping someone who has fallen down, distributing lunch food, adjusting his/her clothing to the temperature, reading a map, carrying a backpack.

RESOURCES

Rocky Mountain Ski Touring Instructor's Manual, RMSTI Association, Steamboat Springs, Col.

Caldwell, John, The Complete Book of Cross Country Skiing

National Geographic Society, Americans on Everest.

Wilderness Skiing, Tejada-Flores and Steck, Sierra Club Books, 1972.

A Guide to Nature in Winter, Donald W. Stokes, Little Brown and Co., Boston-Toronto, 1976.

INTRODUCTION TO CROSS COUNTRY SKIING, SKI EQUIPMENT, AND CLOTHING

Objective

Students will become familiar with cross country skiing, its similarities and differences to downhill skiing and a variety of ski equipment and ski clothing.

Transferable Learning

Part One

Students practice analytical and observational skills, learn about new sports, and learn to dress with care for particular events.

Part Two

Students learn to work cooperatively with others, to comparison shop, to work with a budget, and to present their ideas.

Materials

Part One

Clothing:

Wool mittens and shells	gaiters	vest
2 pair knickers (wool and poplin)	long underwear	wool shirt
knicker socks	fishnet underwear	wool sweater
60/40 jacket	down jacket	turtleneck shirt
anorak	wool hat	sunglasses

Cross Country Equipment:

Five pair of skis with bindings:

a) racing skis, b) touring skis (wood and fiberglass), c) mountaineering skis, d) waxless ski.

Three pair of ski boots:

a) racing, b) touring, c) mountaineering.

Three pair of ski poles:

a) racing, b) touring, c) mountaineering.

One set of downhill ski equipment:

a) skis, b) boots, c) poles.

Films:

Skinny Skis, Oak Creek Films
Any film on downhill skiing.

(con't.)

(con't.)

Procedure

1) Briefly discuss downhill, cross country, and ski mountaineering. Show both films and discuss the differences and similarities amongst the sports.
2) Show and compare the five pairs of skis highlighting construction material, length, width, bindings, side cut, sizing, camber and waxing needs.
3) Show and compare the uses of various poles and boots. For the poles include construction material, straps, tips, baskets, and sizing. For boots include construction material, appropriate bindings, and sizings.
4) Distribute one or two articles of clothing to each student. Ask the students to verbally identify each item and its use. Upon completion of student's explanation summarize the importance and use of each item and add information.

Evaluation Exercise

Divide students into small groups. Distribute ski equipment and clothing to each group. Allow them five minutes to develop a "T.V. commercial", or sales pitch to sell their product to the class. Have the groups present their sales pitch and have the class evaluate the presentation on the amount of information given and the creativity of the presentation.

PART TWO

Materials

Pencils, paper, equipment catalogs, equipment and clothing lists.

Procedure

1) Explain to students that they have an imaginary budget of $400 which they will use to purchase the necessary cross country ski equipment and clothing to take up the sport. They can use any of the catalogs.
2) Students can either work as individuals or in groups of two or three.
3) Given the equipment and clothing on the handout sheet students will make their own choice on model, style, etc. (Example: skis are on the list and must be selected but students can pick the ski of their choice: mountaineering, touring, racing, wood or fiberglass, etc.)

   Cross Country ski equipment and clothing to be purchased:

   skis
   bindings
   boots
   poles
   hat
   gloves or mittens
   jacket, anorak, or vest
   shirt
   sweater
   knickers
   knicker socks
   long underwear
   sun glasses

Evaluation Activity

After students have had sufficient time to make their selections have each student or group discuss and defend their selections and costs.

Supplemental Experience

Visit a local ski equipment and clothing store and observe merchandise and ask salespeople questions.

SNOW STUDIES AND WAXING FOR CROSS COUNTRY SKIING

Objective

Students will learn about snow metamorphasis and the basics of waxing a cross country ski.

Transferable Learning

Students will use observational skills, have a lesson in basic earth sciences, practice problem solving skills, and learn to properly care for school equipment.

Materials

Snow, a variety of ski waxes (both hard and klister), scraper, wax chart, hand lens, black paper, white gas to remove klister, food coloring, shovel, thermometer, enough skis for everyone to wax one, paper and pencils.

Procedures

1) Open with a discussion on snow and the changes it goes through while on the ground.
2) Have students examine snow flakes with a hand lens on black paper. (A fun addition to this activity is to have students sttempt to catch falling snow flakes on their tongues!)
3) Show students diagrams of different snow crystal types.
4) If possible have students go to a snow bank and dig a pit that will allow them to see the different layers of snow. Food coloring may help to show the differences between each layer. A hand lens for each student will help them see the differences between layers. Emphasize the fact that snow takes different forms.
5) Back inside the building, explain the purpose of waxing skis and demonstrate basic waxing procedures.
6) Explain differences in types of wax and how to examine snow and how to use a wax chart to select the proper wax.
7) Let students feel the different waxes. If there is snow on the ground wax a ski properly and show how it works. Then wax one ski improperly and show how snow either sticks in clumps or simply slips over the snow.
8) Let students practice choosing a wax by giving snow conditions, snow type, temperature, and weather forecast, and then asking for the correct wax.
9) Show students how to scrape was off skis and clean off klister wax.
10) Let students clean off waxes.

Evaluation Exercise

1) Take students skiing for a day and let them pick the wax and evaluate it.

Supplemental Experiences

1) Try a variety of different waxes on a certain day, and evaluate how each works and why.
2) Have students prepare an oral or visual presentation to give at local sports equipment store that sells skiing equipment.

CROSS COUNTRY SKI MAINTENANCE AND REPAIR KIT

Objective

Students will learn about basic maintenance of cross country skis (both fiberglass and wood) and how to fix them if they break while cross country skiing in the back woods. (con't.)

(con't.)

Transferable Learning

Students will learn the necessity of taking good care of equipment, and the value of careful planning. They will also practice brainstorming and friendly competition.

Materials

Can of pine tar, butane torch, waxing iron, rags and paint brush, newspaper, sandpaper, cabinet scraper, matches, 1 wooden cross country ski (not prepared), 1 wooden cross country ski (sanded), 1 fiberglass cross country ski, 1 can green or polar ski wax, enough skis for students to practice on with close supervision, 1 repair kit (see Chapter XII, "Logistics" for list).

Procedures

1) Open with a discussion on care and maintenance of skis. (Wood and fiberglass)
2) Demonstrate pine tarring a wooden ski.
3) Have students practice pine tarring.
4) Demonstrate how to base prep a fiberglass ski.
5) Have students practice base prepping a fiberglass ski.
6) Lead discussion on how easily skis break and the need to carry a repair kit.
7) Have students brainstorm a list of what items should be carried and why.
8) Empty a repair kit and explain the contents or play an equipment game (like the First Aid Kit game in chapter IV).
9) Have students suggest other items which might be carried in a repair kit.

Evaluation Activity

1) Simulate a ski tour and a broken ski accident. Have students react and fix the ski. Evaluate their performance with them.
2) Have students prepare a visual presentation on the need to have repair kits along on a ski tour and suggested kit contents, and display this in a local community center or ski or sports shop.

WINTER FIRST AID : HYPOTHERMIA, SNOW BLINDNESS, FROSTBITE, AND DEHYDRATION

Objective

Students will review their knowledge of hypothermia and learn the cause, prevention and treatment of frostbite, snowblindness and dehydration.

Transferable Learning

Students learn about the basic functioning of the human system and how to work as a group to treat a medical emergency.

Materials

Sleeping bag, first aid kit, make-up kit (to simulate emergency medical conditions), cardboard, scissors

Procedure

1) Introduce lesson as one that will help students avoid possible cold weather problems and deal with them safely should they arise.

2) Draw the following chart on the board as a guide to help students recall as much as they can about hypothermia:

Causes	Prevention	Symptoms	Treatment

3) Read a narrative of a hypothermia emergency. Ask students to critique errors made by people in the story and what measures should be taken to deal with the situation. Review precautions, symptoms and treatment.

4) Discuss effects of cold environment on the body. Because cold causes blood vessels to constrict, skin temperature is reduced. Therefore, skin tissues are more susceptible to cold injury especially extremities and exposed skin parts. Emphasis should be placed on careful protection of cheeks, fingers, noses, ears, and toes.

5) Introduce frostbite as a result of exposure. Ask for a definition of frostbite and list symptoms suggested by students on the board (try to list them in order of severity). Fill in information they miss. Differentiate between frost nip and deep frostbite.

6) Explain that frostbite is provoked by the same conditions as hypothermia: cold, wet, wind, exhaustion. How can we prevent it? Discuss preventions.

7) Discuss symptoms and treatment for both frostnip and frostbite. Explain that frostnip is a problem but students should never have to cope with extended care of deep frostbite.

8) Review the DON'Ts of treatment:
   1) don't smoke (constricts blood vessels)
   2) don't drink alcohol (dilated vessels lose more heat)
   3) don't rub the area
   4) don't warm with fire or oven

9) Discuss snow blindness: its causes, prevention, and treatment. Stress that it is much better to prevent it then to treat it. Demonstrate emergency prevention: make lenses out of cardboard or paper by cutting a thin slit in a paper or cardboard band.

10) Discuss dehydration and the need to be concerned with dehydration on winter activities in the wilderness. Stress that people tend to discount this as a problem only to be concerned with in the summer or in a hot desert. Teach that an adult needs two to three quarts of fluid per day to replace water loss.

Evaluation Exercise

Simulate a medical emergency situation for each of the first aid problems taught above. Have students react to the simulation, diagnose the problem and treat it. Evaluate the simulation through a debriefing discussion. Review prevention, symptoms and treatment for each.

WINTER SURVIVAL

Objective

Students will become familiar with basic winter survival including the construction of snow shelters, winter nutritional needs, fire building, winter survival kits, and emergency signaling.

Transferable Learning

Students learn of the necessity to plan ahead, and about basic nutrition.

Materials

Paper and pencil

(con't.)

(con't.)
Procedures

1) Have students brainstorm and then prioritize their needs if they were lost out of doors in the winter. The following questions may stimulate discussion:
   - how long can you go without food? (3 wks)
   - how long can you go without water? (3 days)
   - what happens if you get wet?
   - how long can you survive in cold without protection?
2) Talk of winter dangers: weather conditions, changing winds, chill factor, first aid/health problems.
3) Divide group into 3 or 4 sections. Have groups imagine they are stranded in the woods in winter.
   a) Have each section make up a survival kit that they would like to have with them.
   b) Have each group describe or draw a shelter they would devise (or actually build one if possible).
   c) Have each group think of 3 ways they could signal for help.
4) When group returns, go over survival kits, compile one list from the several lists.
5) Talk about types of shelters - advantages, disadvantages of each.
6) Talk about types of signaling.
7) Discuss need for fires in winter and how they are to be built. Have students brainstorm hints for fire building in winter.
8) Discuss nutritional/health needs in winter.

Evaluation Exercise

1) Read from one of the many accounts of extreme survival situations (*Endurance* or *Alive* are examples of two possible books) and have students critique the actions of the people in the story using their newly acquired knowledge.
2) Spend some time actually building snow shelters and perhaps even live in them with only the contents of a survival kit for a couple of days.

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BASIC FLAT TRACK - CROSS COUNTRY SKI LESSON

Objective

The object of this lesson is to teach students the basics of cross country skiing on a flat-track teaching area. This lesson is intended for students who have not been on skis before.

Transferable Learning

Students will increase interest in recreational activity, practice gross motor coordination, and participate in a group lesson.

Materials

A clear snow-covered, fairly flat field about the size of a football field, not too far from shelter. Cross country ski equipment and waxes. Warm winter clothing (loose fitting).

Procedure

(Note: This lesson is adapted from the approach suggested in the Rocky Mountain Ski Touring Association's Instructor's Manual. Please refer to it for more details.)

1) Have students ski behind you as you pack a large rectangle to teach the lesson in. After they are warmed up and you have had the opportunity to observe them, have them line up side by side with enough room between each other that they can hold out their ski poles at length without touching each other.

2) Teach the students how to side step by picking up one ski and moving it two feet away, putting it back down and then bringing the other one alongside of it. Have them try this both to the right and to the left.

3) Teach students to turn around on their skis while keeping the tails of the skis together. (This makes a wagon wheel pattern in unpacked snow with the ski tail forming the wheel's hub.)

4) Teach students to turn around on their skis while keeping the tips of their skis together. The wagon wheel hub is now at the tips of the skis.

5) Have the students combine the two above methods, first one step on the tips and the next on the tails, alternating until they have made a complete circle. Point out that the wagon wheel hub is now below their boots.

6) Have students practice falling down and getting up. Demonstrate how to organize yourself before attempting to get up.

7) Have students practice each of the following exercises on the packed track without use of their ski poles. Note: A good method to use is to first show the exercise then explain or instruct it and then have them practice it. (Show, instruct, practice.) These exercises should help students to better understand the diagonal and double-pole techniques to be taught later on.

   a) Glide: have students extend each step that they take by gliding the ski at the end of the step. Explain that this is the secret of good cross country skiing as you get the most distance out of a small amount of energy output.

   b) Deep knee bend: have students ski with their knees bent as low as possible. Demonstrate this by mimicking Groucho Marx on skis (with cigar and all).

   c) Exaggeraged arm motion: have students ski and swing their arms from shoulder height in front to shoulder height in back.

   d) Jogging on skis: Ask students to jog around the track taking small quick kicks and have them concentrate on feeling the wax grip the snow.

   e) Weight shift: this is the most difficult of all these exercises. While skiing towards the group exaggerate the weight shifting motion from one ski to the other by making sure your ski comes completely off the ground while you glide on the weighted ski.

(con't.)

(con't.)

8) For the next series of lessons the students will need to use their poles again. Show them the proper way to use the pole strap. Again use the teaching method of show, instruct, and practice, but be sure to allow the most time for practicing.

   a) Diagonal: have students ski around the track. Emphasize trying to put together things they learned in the previous lessons: gliding, arm swing, weight shift, knee bend. Explain how to use the pole to propel yourself down the track and emphasize the follow through.

   b) Double-poling: have students propel themselves by using only their poles. Poles should be brought forward together for one big push with a follow through. To insure a follow through have them bring their hands together with arms fully extended behind them.

   c) Double poling with one or more kicks: show students how to combine the double poling action with kicking. Emphasize alternating when one part of the body gets tired.

   d) Skate turn: demonstrate the skate turn on a corner of the flat track. Explain that it is similar to turning wagon wheel style as learned earlier.

Evaluation Activity

Stage either a game of hug tag or some relay races and watch the students to see how their respective techniques measure up.

BASIC UPHILL & DOWNHILL TECHNIQUES ON CROSS COUNTRY SKIS

Objective

Students will learn the basics of climbing a hill on cross country skis and learn to ski back down the hill competently.

Transferable Learning

Students will develop confidence in their ability to take risks, develop gross motor skills, practice working cooperatively in a group, and increase their range of recreational experiences and interests.

Materials

Ski boots and poles, warm clothing, a snow covered hill with a slight grade and a flat, safe runout.

Procedure

1) Show, instruct and allow students to practice the following methods of climbing a hill.

   a) Straight climbing: emphasize placing the ski solidly on the snow while keeping your back straight and lower body forward.

   b) Herringbone - when a hill becomes too steep to straight climb, show how to use the herringbone position. Emphasize keeping tails of skis together as in wagon wheels taught earlier. Show how to use ski edges to help prevent skis from slipping backwards.

   c) Forward sidestep: show how to use the side stepping which they learned earlier to now climb the hill. Show how it can be more effective when combined with a forward motion.

   d) Travese: show how to climb the hill by simply skiing at an angle across the hill. Emphasize use of poles and angling ankles into the hill.

2) Show, instruct and practice the following downhill techniques:

   a) Straight running: emphasize keeping knees bent like shock absorbers and staying relaxed.

   b) Traverse: opposite from the travese used to climb a hill. Show how to use this to reduce the angle of descent.

c) Step turn: show that this is similar to the step turn practiced on the flat track and to the wagon wheels practiced earlier.

d) Snow plow: demonstrate how to use the snow plow to slow your descent on the hill. Explain proper position emphasizing keeping the tips together, knees bent and how to edge the ski to increase control. Have students practice snow plowing to a complete stop.

e) Snow plow turns: demonstrate how weighting one ski more than the other while in a snow plow position results in a snow plow turn. Explain that to turn right you must shift your weight to the left ski. Have students attempt to link a number of turns together.

Evaluation Activity

Set up a slalom course using the students' ski poles and have them practice turning through the course. Divide students into two teams and have a relay race. This should give you a good indication as to who has mastered the basic uphill and downhill skills.

PLANNING A CROSS COUNTRY SKI TOUR OR WINTER TRIP

Objective

Students will become familiar with how to plan a cross country ski tour: when to go, what to bring in your pack, safety, and leadership.

Transferable Learning

Students will learn the merit and value of good planning and foresight, will learn about leadership qualities and styles, learn to be a responsible leader, and will learn to research an answer to a problem or question.

Materials

Ski touring guide books, topo maps of different areas, ski tour repair kit (see Chapter XII, "Logistics") and ski leader's pack (see Chapter XII, "Logistics"), projector and screen, film: *Americans on Everest,* from the National Geographic Society.

Procedure

1) Open with a general discussion on planning. Discuss the five P's ("Prior Planning Prevents Poor Performance") as stated by the National Outdoor Leadership School, (from The Wilderness Handbook, Paul Petzoldt).
2) Tell the story of a poorly planned trip and consequences (i.e., 1st International Everest Expedition, and one climber's abandonment during the climb).
3) Brainstorm and discuss the responsibilities of a good leader, good leadership qualities, styles, etc.
4) Split the group into small groups and have them brainstorm what a leader should carry in a pack on a winter ski touring trip. Compare what each group thinks is appropriate and why. Contrast this to the list in "Logistics", Chapter XII.
5) Discuss how to choose an area to ski. Use available resources including guide books, topographical maps, asking people in ski shops, forest rangers, etc.
6) Show film and discuss good expedition planning and behavior.

Evaluation Exercise

Allow each student or group of students to actually plan a trip from start to finish. If possible let them actually go on the trip and evaluate it in a debriefing discussion afterwards.

ENRICHMENT ACTIVITIES IX

ENRICHMENT ACTIVITIES

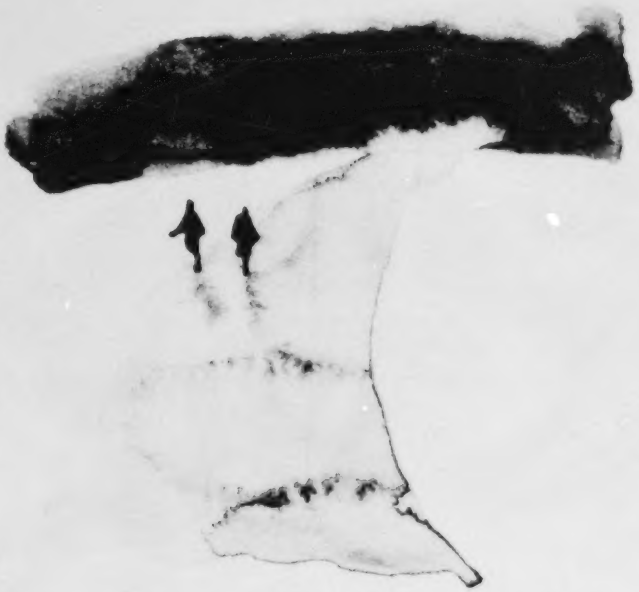
Hiking, canoeing, and the like give us opportunities to work with students on their behavioral problems and also expose them to new recreational possibilities. Enrichment activities serve these two purposes, but also enable us to broaden our contact with our students.

First, the wide range of crazy, artistic, scientific, and innovative activities we use help us to spark enthusiasm and make connections with all of our students. An individual's hidden ability or interest in writing poems or building snowshoes won't emerge when we rock-climb, but will surface if we provide a variety of opportunities. The emergence of a talent in writing haiku gives us another opportunity to validate a student, and motivate him or her to pursue a new interest.

A second exciting benefit of using enrichment activities liberally are the bridges they help us build with academic subject teachers. We try to integrate our work with the general school program, and using enrichment activities connects us more directly to the science, social studies, english, and art curriculae. The possibilities here are unlimited, as virtually anything that a classroom teacher is pursuing we can support in the outdoor setting.

Our service project to rebuild an eroded trail impacts a student's understanding of the process of erosion. An english teacher's efforts to teach descriptive writing can be supported as we hike to the top of a peak and turn to admire and write about the view. A budget analysis of food and menu costs draws on the unit pricing and fraction lessons learned in math class. We try to keep abreast of what's happening in the classroom, and use it outdoors, as our students gain tremendously from the concrete use of a skill or concept.

Our committment to enrichment activities also comes from our appreciation of the human-ness and cultural value that they can bring to our outdoor courses. Our physical, challenging activities are well complemented by quieter, more thoughtful moments filled with artwork or inspection of plant life. Although our students tend to be fast-moving, and non-expressive, many of them will use these parts of themselves more willingly after long sessions of physical activity. They benefit greatly



from making contact with the quieter sides of their personalities.

The following collection of activities is by no means complete, but it is a good spectrum of possible activities.

Behavioral Objectives
Enrichment Activities

During 50% of the outdoor experiences each student will make a positive observation about the scenery to the group.

During at least two outdoor activities students will write a minimum of five sentences (either a poem, journal entry, or newspaper article), about their experiences.

(See each lesson for more specific objectives.)

RESOURCES

Environmental Education Handbook, D. Colburg, Office of Public Instruction, Montana, 1972.

The Cloud Book, T. DePaola, Scholastic Press, New York, New York, 1975.

Care of the Wild, Feathered, and Furred: A Guide To Wildlife Handling and Care, Unity Press, California, 1973.

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A Field Guide to Animal Tracks, O.J. Murie, Houghton Mifflin Co., Mass., 1954.

Acclimatizing, Steve Van Matre, American Camping Association, Indiana, 1974.

CLOUDS

Objective

Students will learn to identify five different cloud forms and their meteorological meaning.

Transferable Learning

Students increase their knowledge of earth sciences and learn the importance of retaining information for later use.

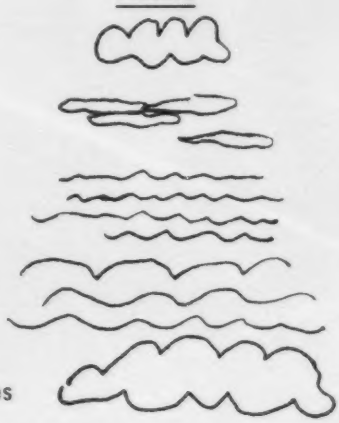
Materials

Books about clouds, chart of cloud types.

Procedures

1) Discuss with students different kinds of weather, and ask them to describe the clouds they associate with the weather.
2) Use the cloud chart, and examine five different kinds of clouds. Identify today's clouds.
3) Ask students to copy this information into their notebooks, and draw the clouds:

Cloud	Common Name	Weather	Picture
Cumulus	Cauliflower Cloud	Fair, sunny	
Cirrus	Marestails	Windy, showers in 36 hours	
Stratus	Bedsheets	Bad weather, Precipitation	
Strato-cumulus	Snow Clouds	Bad weather, precipitation	
Cumulo-nimbus	Thunderheads	Very turbulent, High winds, storms	



4) Discuss with students the importance of weather predicting in the outdoors.

On Going Activities

5) Ask students to make a one month calendar in their notebooks, and begin to take notes on the daily weather. Make forecasts based on observations and then write down the actual weather. Try this for one - four weeks.
6) During class time, ask the students to identify the clouds and make predictions.
7) Compare the above to the Farmer's Almanac.

Evaluation Activity

Ask students to predict the next few days' weather whenever you meet for a wilderness class; ask for definitions of cloud types and nicknames.

WEATHER MAPS

Objective

Students will learn six different weather symbols, and use them to gather information from a weather map.

Transferable Learning

Students increase their knowledge of earth sciences, practice visualizing from abstract symbols, and see the usefulness of a newspaper.

Materials

Newspapers with weather maps, index cards, pens or pencils.

Procedures

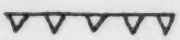
1) Ask the students to pick a partner and work in pairs. Distribute six - eight index cards and one or two newspapers to each pair.
2) Ask each pair of students to copy symbols from the weather map onto the back of an index card. (Use pencils.)
3) As students accumulate four - six symbols, ask them to hold up a card (one at a time) and discuss its meaning.
4) Draw the six symbols on a blackboard or large sheet, have students check their own symbols and label the back of each card appropriately.

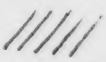
Symbols

Low pressure system

High pressure system

Cold front

Warm front 

Precipitation 

Cold and warm fronts meeting

5) Give the students several minutes to test each other with their cards.
6) Using the newspaper weather maps, ask students to verbally explain the local and national weather patterns.

Evaluation Activity

Use maps cut from the newspaper and the index cards as flash cards for a "weather bee". Each correct answer scores one point.

POEM FORMULA

Objective

Students will contribute to writing a brief poem expressing thoughts or feelings about an event.

Transferable Learning

Students express their thoughts and feelings and practice choosing words carefully in order to convey ideas.

Materials

Newsprint and marker.

Procedures

1) After a physical activity or a challenge, ask the group to seat themselves close together.
2) Discuss with the group the process of explaining or describing. Ask for anecdotes of frustrations in giving directions or telling a story. Discuss the concept of *expression*, and various forms of expressing such as words, gestures, movement, and art forms. Lead into poetry as a form of expression.
3) As a group, write a poem describing the just-completed activity. Use this formula; ask each student to complete a line:

   Formula

   1) Verb ending with *ing*
   2) Two adjectives
   3) Three phrases
   4) A phrase beginning with "if only"
   5) (Free choice)
   6) Same word as #1

   Example

   Paddling -
   Exhilarating, exhausting
   the spray chills, my heart pounds, the water roars.
   If only the rocks were made of sponge,
   or we were a floating leaf.
   Paddling.
4) Post the poem back at school.

Evaluation Activity

Ask the students to write poems individually as part of another activity. Look for positive attitudes toward poetry, and interest in writing more poems.

PRESS RELEASES

Objective

Students will write a two page article using complete sentences, correct spelling and punctuation, and good paragraph form.

Transferable Learning

Students use language arts skills and recognize the community newspaper as a vehicle for publicity, information, and community awareness.

Materials

Pencil and paper, photographs (if possible).

Procedures

1) Contact local paper and arrange for acceptance of one - two short articles each month.
2) After an event ask for three students to work on a newspaper article.
3) Discuss with the students the purpose of the newspaper article. Review the happenings of the event. (con't.)

(con't.)

4) With the students, work up an outline of the article.

5) Give the students a half hour or so to divide up responsibilities for writing different sections and begin writing. Emphasize independence and the time deadline of one half hour, motivate students to complete article.

6) Help students complete article and choose photographs.

7) Have article typed and submit to newspaper.

Evaluation Activity

This activity serves as a vehicle for getting students to use language arts skills. Any letter, story, or poem would serve as a good follow-up activity.

FOOD FOR A DAY

Objective

Students will arrive at a per person, per day price for a menu written by their group.

Materials

Pencil and paper, fair weather.

Transferable Learning

Students use math skills, practice appropriate public behavior, and work with others to solve problems.

Procedures

1) Arrange for students to spend an hour at a local supermarket.

2) Before proceeding to supermarket, discuss with students what they eat for breakfast, lunch, and dinner. Remind them of beverages, desserts, salads, etc., to make complete meals. (See "You Are What You Eat", Chapter IV, "Prerequisites".)

3) Divide into groups of three, and give the students five minutes to prepare a menu for a day for four people. Encourage them to think about quantities.

4) Proceed to the supermarket.

5) Challenge the students to arrive at a per person per day cost for their menus. Give them twenty minutes in the store, and ten minutes seated outside. Encourage them to be accurate (i.e. ½ bag of carrots - $.15). Ask them to write down their prices.

6) Ask each group to present its work and discuss their search.

7) Debrief the activity as to cooperation, leaders and followers, problems, thoroughness, etc.

Evaluation Activity

Have students prepare menus and cost estimates for an overnight trip.

KNOW YOUR TREE

Objective

Students will learn three parts of a tree aiding in its identification, and will make a statement describing their participation in the activity.

Transferable Learning

Students develop sensory awareness and learn to look for detail. They also work carefully with a partner.

Materials

Blindfolds, name tags, wooded area.

Procedures

1) Divide the class into pairs.
2) Review the five senses. Discuss the relative importance of each one.
3) Ask each pair to blindfold one person. The sighted partner spins his/her partner around three times and leads him/her to a tree. Emphasize safety.
4) The blindfolded person 'learns' the tree thoroughly: leaf shape and size, twigs, bark, size of trunk, size of crown, smell, taste, etc.
5) The sighted partner spins the person around and leads him/her back to the group.
6) When all teams have returned, remove blindfold and challenge the partners to find their trees.
7) Repeat with roles reversed.
8) Discuss tree identification and sensory awareness. Emphasize leaves, bark, and twigs, and pass around several different twigs to look at.
9) Discuss the experiences of being blindfolded, helping, and tree-studying. Encourage everyone to contribute.

Evaluation Activity

Take clippings from five different trees, and ask students to write down ten observations about each one. Their observations should be diverse, multi-sensory, and specific.

AN ORIENTEERING COURSE

Objective

Students will practice the skills learned in the compass lessons, Chapter V, "Backpacking and Hiking".

Transferable Learning

Students will recognize the usefulness of learning a skill, will test their own knowledge and judge their effectiveness as learners.

Materials

Paper and pencil, compasses, bandanas.

Procedures

1) Set up an orienteering course by taking a series of bearings (four - ten) through the woods. At each starting/finishing point leave a bandana with a note enclosed.
2) Make the route long enough so students can't follow each other. A hilly, wooded area helps in this.
3) On each note draw a symbol ( ) and the next bearing. (110° , 40°, etc.)
4) Students must copy down the symbol and bearing at each station to "prove" their stop at each station.
5) Set students out at two - three minute intervals in groups of two - four.
6) Discuss each group's successes, failures, and experiences when they all return.

Evaluation Activity

This activity self-tests as the non-learners cannot complete the route; it's also fun to run the route in reverse (Add 180°) as a check.

BUSHWACK : TRAVELING TRAIL-LESS-LY

Objective

Students will use a compass bearing to travel cross-country from point "A" to point "B".

Transferable Learning

Students will see the importance of working as a team, of learning a skill well, and of attending to accuracy and detail.

Materials

A topographic map, several compasses (one for every three students.)

Procedures

1) Choose two clearly defined points on a topo map, approximately one mile apart. Hike to point "A".
2) Review with the students the leapfrog method of traveling a bearing.
3) Give the students the map, ask them to orient it, find the bearing between the two points and bushwack to point "B".
4) Hike with the students to their destination. Do not interfere or help except to maintain safety.
5) When the students make it to "B", debrief the activity. Analyze the positive and negative parts of their process in bushwacking.
6) If students become really disoriented, wait until they determine their failure. Regroup, discuss the problem, and if time permits, try again. If not, plan a second bushwack for a further date.

Evaluation Activity

This activity self-evaluates as students will not succeed if previous lessons have not been learned. A second bushwack or an orienteering course serve well as supplementary activities.

READINGS : THOUGHTS, QUOTES, POEMS AND INSPIRATIONS

Objective

Students will focus their thoughts, think about their own learning, and increase their self-awareness.

Transferable Learning

Students will develop self-awareness and come to value good, personal thinking and searching.

Materials

Appropriate readings

Procedures

1) Gather the group together.
2) Give reading, give time for reflection.
3) Ask for reactions, if appropriate.

Comments

Readings provide opportunities to practice listening skills, and giving good attention to others. They serve to focus a group's attention as well as focus individual's thinking. They can also cap off a special event or moment.

Some of our favorite readings are scattered throughout this book, and we hope they'll provide teachers with a beginning collection of readings.

SOLO : SOME TIME ALONE

Objective

Students will have the unique experience of spending one - forty-eight hours completely alone, and will reflect on their own needs for people, alone-ness or other personal concerns.

Transferable Learning

Students will see the importance of friends, loved ones, activities, school, or work to their lives.

Materials

Solo A: whistles, journals, ensolite pads (optional).

Solo B: tarp, sleeping bag, ensolite pad, water source or water jug, small packet of food, whistle, jack-knife, and alpine cord for each student.

Procedures

Solo A : Mini Solo

1) Prepare students for a brief solo; discuss why solo is held, what it might be like (boring, reflective, lonely, etc.), and encourage students to set personal goals and write in their journals.
2) Place students in solo sites. Sites should be selected carefully, and students should understand that they are to stay within boundaries and not disrupt another person's solo. Students should know that their whistle is for an emergency.
3) Hold a mini-solo for one - three hours.
4) Debrief solo, ask for thoughts, insights, etc. Encourage acceptance of all reactions: boredom, loneliness, etc.

Solo B : Extended Solo (one - two nights)

1) Prepare students for solo. Describe it as a time of reflection, of contrast to hectic living, of thinking. Discuss "rites of passage" (walkabouts, vision quest) and how they are similar to solo.
2) Explain safety procedures: boundaries of each site, three daily checks, use of whistle, adequate setting-up of tarps. Show them teacher's campsite.
3) Encourage students to set goals, use journals, do artwork. Ask them not to disrupt another's solo out of boredom.
4) Place students at sites. Students should be settled into the site: shown boundaries, water sources (and necessary restrictions on swimming), special features of site, some discussion of goals, hopes and fears of solo, etc.
5) Hold overnight solo, one - two nights. Check students' shelters and students' health visually three times a day. Students should wave to instructors.
6) Following solo, a bland, light meal should be prepared. Yogurt and fruit, cereals, etc.
7) Debrief solo thoroughly and joyously. Solo is usually a time of strong feelings, both negative and positive.

Evaluation Activity

Students can enter their thoughts about solo into a group journal.

Comments

The pre-solo discussion is a good time to use the activity "Fear in a Hat". (See Chapter X.)

We are better than we know. If we can be made to see it, perhaps for the rest of our lives, we will be unwilling to settle for less.

- Outward Bound Student

SERVICE PROJECTS

Objective

Students will plan and complete a project for a group or institution that demonstrates human or environmental concern.

Transferable Learning

Students will learn that they have skills and abilities that are helpful to others and appreciated by them.

Materials

As appropriate to the project.

Procedures

1) With students, plan a service project. Help them assess their interests and talents, and generate two or three workable ideas.
   Ideas:
   - clean a vacant lot
   - plan and give a party for children (Christmas, Halloween, etc.)
   - plant gardens for the elderly
   - run a benefit tag sale sale;
   - paint or repair a building for a church, camp, or foundation
   - build trails, foot bridges, etc.
2) Have students approach the appropriate party for their project and plan the date, publicity, etc.
3) Run the service project, and emphasize quality of work and full participation.
4) Try to arrange photographic coverage of the project so students can have pictures.
5) Try to arrange media coverage to validate publicly what they have done.

Evaluation Activity

Debrief the service project, and discuss how our communities tend to work: isolated groups, isolated individuals, etc. Encourage a sense of community and pride in contributing.

RUN AND DIP ("Early Morning Madness")

Objective

Students will run a mile and then take a quick swim in a lake or pond.

Transferable Learning

Students will develop self-discipline and physical fitness, and will appreciate early morning physical activity.

Materials

Running clothes, body of water.

Procedure

1) Briefly explain "run and dip" to the students.
2) Review the safety rules of the run and dip:

a) an instructor brings up the rear.
b) the crew will run as a group.
c) run the whole distance, go slowly if necessary.
d) no diving into water.
e) go into water only waist deep.

3) Slowly run a mile with the crew, and then take a quick swim. (Sunrise is the best time.)
4) Do a reading to celebrate the moment.

Evaluation Activity

Occasionally offer an optional run and dip, or an afternoon run. Hopefully students will participate on their own.

JOURNAL KEEPING

Objective

Students or crews will keep journals of their participation and experiences during outdoor activities.

Transferable Learning

Students develop their self-expression, practice writing skills, and learn to appreciate personal history.

Materials

Notebooks and pencils.

Procedures

1) A. Individual Journals
Each student has a notebook which s/he keeps for the full year (or for one experience). Students are encouraged and given time to write in their journals.
B. Group Journals
A crew keeps a group journal which is passed freely from person to person, and serves to collect poems, reports, ideas, reflectives, etc. about a particular experience.

2) At night, around the fire, or first thing in the morning students or crew members are encouraged to read from their journals to the group, and share something they've written.

Evaluation Activity

After a course, take selections from the group journal and from individual journals, and make a booklet or magazine about a trip. Itineraries, maps, and drawings can also be included.

We all just made it to the top and I can't believe it. I haven't seen more beauty in the life I have already lived. It was a hard struggle to the top, the snow on some parts was to our knees but we all made it. The sky is so close and the wind is so pleasant, the air is so clear and clean. I just feel like crying and am so glad I have this chance to see this most beautiful mountain top that I have seen so far in my life. I feel sorry for the people in this world who haven't seen it. The people I love are here with me. There's so many mountains, trees, I can see a river or lake in front of me and to my left a little building way at the bottom. I never felt this way. I have a weird feeling inside I can't explain. Thank you and all my love to the Wilderness School, Project Focus, myself, and to the Smokey Mountains. Stay just the way you are, you are so beautiful.

Pam Sheehy
- Shelton Alternative High School

DEBRIEFINGS X

INTRODUCTION

Teachers and counselors who work with adventure education programs recognize the therapeutic value of the program activities. The success of the outdoor experiences can be greatly enhanced through the use of a "debriefing" or group counseling process that follows or even interrupts an outdoor experience.

THE COUNSELING GROUP

"Groups", as we call our group counseling sessions, command a large amount of time. They are held anytime during an activity when the students or teachers feel the need to gather the group to confront and discuss a problem or to celebrate a success or special moment. Groups are held over such problems as a student's refusing to participate, slander, fights or other disruptive behavior, or inability to complete an activity. Groups are also used following almost every activity to share positive feelings and validate individuals. The students and teachers review the happenings of an event, discuss what made it work or falter, and validate each other for good ideas, positive leadership, and contributions.

We feel that the group process is crucial in helping us meet our goals. The outdoor experiences and initiative problems are not magical events. Changes in students behavior and self-concept will not happen without the pointing out, criticizing, and reinforcing of appropriate and inappropriate behaviors. Our students cannot learn from the experiences alone. An experience becomes meaningful when we help them translate it into knowledge.

SOME THOUGHTS ON THEORY

During the debriefing process we can effectively do some of the "reteaching" that is so needed by most of our students (see Chapter II, "Reality Therapy"). Although we seek opportunities for individual counseling, our microcosm of ten - twelve people is effective in illustrating to each student his/her strengths and weaknesses, and it is also from this peer group that the feedback must come.

The successful debriefing of an activity is dependent on the existence of a positive peer group. (see Chapter I). If students do not value and respect each other, then their mutual feedback will lack credibility and impact. Teachers must be sensitive to the amount of trust, caring, and commitment demonstrated between students when they gather the group for a debriefing.

FACILITATING GROUP DISCUSSIONS

At your program's beginning, it is valuable to set the precedent of "grouping" after an activity, if only to review the event and listen to various re-

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actions. As the group becomes closer, the discussions will become more colorful. Initially, however, you are establishing the habit of reviewing each activity, and expecting contributions from the group members. These are important habits to establish, as well as the practicing of good listening skills: sitting quietly, not interrupting, and trying to understand another person's words.

Our groups include free discussion, structured activities, and questioning from the teachers or students. We try to mix these three methods, as different students respond to each format. We find it very useful to use structured activities, as these help students to listen to each other and contribute. The quiet folks often become overshadowed if there is too much free discussion.

Structured activities (there are six outlined in the following pages) generally proceed around a group, asking for a contribution from each group member. Most students are willing to contribute, but we do offer them the right to "pass" on a question or statement. We feel that we all have a right to privacy or silence.

As a group of students become closer and more open, confrontations and criticisms become parts of group discussions. In order to avoid excessive hurt and "dumping" on an individual, we feel it is important to teach appropriate confronting and criticizing methods, and insist at the necessary moments that they be used. Two good activities to use are " 'I' Statements" and "RDA's". (outlined in the next section). At the same time, we believe it is important for students to express and receive anger, and we allow that to happen.

RULES

It is very useful to establish ground rules for group meetings. Students need to have an understanding of appropriate behavior, and teachers need a set of ground rules to use in insisting on participation and contribution.

These rules, taken from the Shelton Alternative Education Project Student Handbook, Shelton, CT (1979), are a good summary of the rules we use with all the different schools we work with. We review these rules with our students.

GENERAL RULES OF BEHAVIOR

1) Listen to each other, don't embarras, don't talk while others are talking.
2) Show interest and care for others in the group. RESPECT.
3) Challenge one another through trust, honesty, and respect.
4) Share your beliefs, feelings, and values with others in the group. HONESTY.
5) Stay with the group while someone is talking. Get drinks, cigarettes, lavatory, finished before. This shows respect for others.
6) Participate in all activities. They are not to waste your time or to embarrass you. They are for thinking, evaluating yourself, and developing care for one another. If you don't think so, all we ask is that you try it first, then challenge. TRUST.
7) Treat others the way you want to be treated.
8) If you don't like a particular topic remember that others might like it. You may learn more about others by listening and watching. This is caring.

Shelton Alternative School
Shelton, Connecticut, 1979

FINISHING A GROUP MEETING

Our group sessions last from ten minutes to several hours. Sometimes they are brief, and serve to wrap up a "new game" or other activity. The longer ones center on stickier events, such as stolen food, refusal to participate, or negative attitudes. We try to work toward a definition of the problem and an agreeable solution. It is important that the students themselves come to the definition and solution, and we use free discussion and questioning to achieve that.

We generally try to wrap up with a feeling of hope, closure or warmth. This is not always possible, but if a group is headed off to their tents or the school busses, a sense of completion is important. "Discovery Statements" or a circle of appreciations are good closing activities.

FINAL THOUGHTS

It is hard for many people to run group discussions that center on behaviors and feelings. It's important to be a bit brave in opening things up, but also to know yourself and feel generally comfortable with what you are doing. We offer a few final hints:

- Ask the group to be seated in a circle. There always seem to be students who want to stand or be aloof. As they are group members, they should join the group.
- When you ask questions, wait for responses. It is hard not to answer your own questions or interpret events for students, but they need to do these things themselves.

- It is useful to share your own feelings to help set a tone of honesty, openness, and respect, and to model for students good discussion behavior.
- Very often you will observe an action or exchange not seen by others. These observations can be good catalysts for discussions.
- Have students define and redefine statements. "I had a good day." What does this mean?
- *Avoid* asking students "Why?" To do so invites excuses. Better to ask: What happened? How does it make you feel? What did it do for you? How can I or the group help?
- *Avoid* being judgemental. Feedback works best that is non-evaluative, given by putting your own feelings on the line. It doesn't help to tell someone they are "bad" or "good". It does help to tell them your feelings in response to them or their actions.

We have used the activities on the next pages successfully. They are useful in structuring a discussion and eliciting focussed thoughts. There are more contained in these books:

Value Clarifications,
Simon, Howe, and Kirshenbaum
Hart Publishing Co., New York. 1978

Consider the Alternative,
Silverstein
CompCare Publications. 1977

Behavioral Objectives
Debriefings

Students will sit quietly during 80% of group sessions.

Students will make at least one contribution to each group session.

Students will validate (make a positive remark to) a classmate a) 100% of the time as part of a debriefing activity, b) during 25% of outdoor experiences on their own initiative.

RESOURCES

Consider the Alternative, Lee Silverstein, CompCare Publications, Minneapolis, Minnesota, 1977.

Values Clarification, Simon, Howe, and Kirchenbaum, Hart, New York, 1972.

Fully Human, Fully Alive, John Powell, Argus Communications, Indianapolis, Ind., 1974.

Reality Therapy, William Glasser, Harper and Row, 1965.

A New Guide to Rational Living, Harper and Ellis, Wilshire Book Company, California, 1975.

FEAR - IN - A - HAT

Objective/Transferable Learning

Students will each express a fear about an activity, and will recognize each others thoughts.

Materials

Pencil and paper, hat.

Procedure

1) Ask the students to sit in a circle, and pass out pencil and paper.
2) Briefly discuss the activity about to happen (white water canoeing, or rock climbing) and review it's components, itinerary, whatever. Talk a little about being afraid of the activity, what could happen, etc.
3) Ask each student to write down a fear s/he has about the activity, fold up the paper, and drop it into the hat.
4) Shake up the hat, and ask each student to draw a slip of paper from the hat.
5) Explain your concern for everyone's anxiety level, and respect for their fears, and your desire to explain safety systems.
6) Going around the circle, each student can read off and explain the fear written on his/her slip. Ask students to elaborate on what they read.
7) As the fears are read off, the instructor can explain safety systems, recognize the fear, etc.
8) Discuss the activity, and emphasize respecting another's feelings.

APPRECIATIONS

Objective/Transferable Learning

Students will validate or appreciate another person for a specific trait or action.

Materials

None

Procedures

1) Ask students to seat themselves in a circle.
2) At the end of a discussion or in place of a discussion, ask students to appreciate or validate each other in one of these ways:
   a) Going around the circle, each student validates the person on his or her right (or left).
   b) Going around the circle, each member of the group will validate one person. Each person in the group has an opportunity to be in the limelight.
3) Ask students to be specific, not "You're a nice friend", but "I appreciate your friendship with me."

'I' STATEMENTS

Objective/Transferable Learning

Students will learn to express their own opinions rather than attacking another person.

Materials

None

Procedures

1) As students are discussing something or finishing up a talk, ask them to express themselves using the word 'I'.
2) Offer these structures:
   "I feel _____ that you . . . "
   "I am_____that you . . . "
3) Help students understand the difference between saying "You're stupid to walk so close to the edge of the cliff." and "I am angry that you walk close to the edge of the cliff."
4) Ask students to use this method during discussions.

MIRROR STATEMENTS

Objective/Transferable Learning

Students will listen carefully enough to one another to be able to repeat each other's thoughts.

Materials

None

Procedures

1) Discuss the importance of listening well, and most people's tendency to react and judge rather than listen.

(con't.)

(con't.)

2) Ask the group to choose partners.
3) Partner #1 has two minutes to explain to the other his/her view of a group problem, strength, or weakness. Partner #2 listens, and then explains back to partner #1 exactly his/her views.
4) Partner #1 comments on the accuracy of partner #2.
5) Each pair then switches roles.
6) Discuss the activity with the whole group back together.

RDA's[1]

Objective/Transferable Learning

Each student will express a criticism in a constructive way.

Materials

None

Procedures

1) Interrupt a discussion that involves criticism or anger, and mention the importance of effective and tactful comments.
2) Use the three words *resent, demand* and *appreciate* in a sentence as an example. ("I *resent* your not helping with cooking and I *demand* that you help, but I do *appreciate* your cutting wood and how you help the group with that.") Give several examples.
3) Ask students to express themselves in that form.
4) Offer the gentler alternative, *bother, wish, appreciate,* if it seems more appropriate. ("It *bothers* me that you don't do the dishes and I *wish* you'd help but I *appreciate* how tired you are.")

DISCOVERY STATEMENTS[1]

Objective/Transferable Learning

Each student will focus his/her thoughts after an activity or experience.

Materials

None

Procedures

1) Ask the students to seat themselves in a circle.
2) Open up a general discussion about the just-completed activity. Look for reactions, laughs, thoughts, etc.
3) Ask students to complete a statement: (choose one)

   I learned that . . .

   I discovered that . . .

   I was saddened that . . .

   I was surprised that . . .

   I was glad that . . .
4) Encourage all students to contribute.

---

[1] Silverstein, Lee, "Consider the Alternative", CompCare Publications, 1977.

TEACHER'S CALENDAR XI

CALENDAR

To help people who are planning a year's worth of acitivites and trying to outline on paper the direction of a program, we've put together a sample one year calendar. This kind of calendar is very useful not only as a planning tool but also as a document to use with faculty, school boards, or parents in explaining your program and building support. The calendar is one of an infinite number of ten month plans, and serves only as one example of how to pull together the activities contained in this book.

To plan a year's worth of programs we usually begin by scheduling our *courses*, wilderness experiences that happen away from the school. These take the form of one - five day hikes, canoe trips, rockclimbs, service projects, or ski tours. The number of courses we plan is governed by our transportation budget, local school restrictions, and resource limitations (either human or equipment resources). In general, however, we try to have three - four experiences during each season. In addition, we plan on holding "wilderness class" generally once, but sometimes twice a week.

After scheduling the courses, the other lessons and activities fall into place. If we plan an overnight ski tour in February, for example, the students must have had the necessary prerequisites in the fall or in January. We also remember than on any course we'll have time not only for the major outdoor activities, but also for initiatives, science activities, or other lessons.

Hopefully this calendar will be useful. Feel free to use it or change it in any way whatsoever.

You can not stay on the summit forever.
You have to come down again.
So why bother in the first place?

Just this: What is above knows what is below; but what is below does not know what is above.

One climbs, one sees. One descends, one sees no longer.
But one has seen.
There is an art of conducting oneself in the lower regions
By the memory of what one saw higher up.
What one can no longer see, one can at least still know. -Rene Daumal

RESOURCES

Teaching Through Adventure, Project Adventure, P.O. Box 157, Hamilton, Mass, 01936.

Project Ranger Curriculum Guide, Title IVC Project, Portland Public Schools, Portland, Oregon.

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SEPTEMBER

		Introductions Overview of rules and program				
		First aid lesson, initiative problem, overview of "groups"				
		First aid lesson, map lesson, initiative problem, debriefing				
		Map lesson, overview of hike, clouds lesson		One day hike: foot care, initiative problems, expedition etiquette, debriefing		

OCTOBER

		Map lesson: contour lines Nutrition lesson				
		Firebuilding & stove use lesson, "Food for a day" problem.				
		Nutrition lesson Tarps & tents				
		Camping Equipment lesson, overview of hike campsite lesson		OVERNIGHT HIKE map lesson, first aid simulation, first aid kit lesson, cooking lesson		
		Weather maps lesson, map lesson (bearings)				

NOVEMBER

		Compass course, debriefing				
		One day bushwack, debriefing				
		Planning & practice for service project at State Home				
		Planning & practice for service project at State Home				

DECEMBER

		Service Project Holiday Party for children. games, singing, crafts				
		Introduction to winter, First aid in winter				
		Winter clothing lesson Christmas Party				
	Christmas Break →					→

JANUARY

		Introduction to skiing (Downhill & XC): films & equipment lesson				
		Waxing and preparing skiis, overview of tour, layered clothing		One day ski tour: basic flat track methods		
		Skiing exercise, Winter survival				
		Planning for overnight: meals, clothes, equipment, etc.		Two Day Cabin Overnight extended ski tour, snow games star gazing, poem writing		
		Wrap-up of overnight, ice skating, hot chocolate over a fire				

FEBRUARY

		Snow studies, initiative problem, debriefing				
February	Vacation →					
		Planning for overnight: meals, clothes, etc.		Two Day Overnight - Cabin 1 day advanced XC skiing 1 day downhill skiing: lessons & free skiing		
		Map making: town, school, classroom				

MARCH

		Introduction to service project, publicity, press release. Know your tree lesson.				
		Values clarifications activities mini solo				
		Planning & preparation for service project				
		Clean-up of vacant lot, painting, fixing, etc.				

APRIL

		Introduction to rock climbing: film, equipment, procedures				
		Rock climbing: signals and belaying				
		Review of belaying, review of rules, knot tying				
		One day rock climbing: easy climbs, rules and procedures				

MAY

		Discussion of rock climbing, film, "Solo", initiative problem				
		One day rock climbs: mixed climbs (hard & easy) rappell				
		Introduction to canoeing: equipment, rules				
		Flat water canoe strokes, overview of one day paddle, safety rules		One day canoeing: flat water, rescues, strokes		
		White water strokes, overview of one day paddle, game		One day canoeing: white water, swims, strokes, rescues		

JUNE

		Planning for 5 day course: route, equipment, schedule				
		Planning for 5 day course: schedule, meals				
	FIVE DAY EXTENDED COURSE Two Days Hiking Rock climbing Day River Canoeing Overnight Solo Final Wrap-up					
	School's out for summer →					

LOGISTICS XII

LOGISTICS

"Logistics" is to the wilderness course what the stage crew is to the drama production. Logistics refers to all the footwork required to get twelve kids and two teachers into the woods with the right amounts of food, well-maintained equipment, good safety procedures, and a realistic transportation plan. Repair kits, schedules, cups of dried beans, logan bread squares - these are the items of interest to the logistics coordinator. It is very, very difficult to remember all the relevant details of a hiking trip, and we think anyone who takes on the challenges of logistics for a school-based program deserves five gold stars.

A logistics coordinator must be well-organized, almost compulsive, a habitual list maker, and endowed with a great sense of humor. S/he also needs to rally others into helping with such tasks as measuring twelve cups of granola into each of five plastic bags which then get double bagged and labeled with masking tape.

Students, of course, are the first and last to end up with these kinds of tasks. We usually begin by doing the food and equipment gathering for them but after they have enough knowledge and experience to know what happens in the woods, we turn the circus over to them. We try to intervene only for safety's sake (enough food to prevent hypothermia, and remembering to bring the first aid kit) but let them make the decisions and plans. It is very hard for a group of twelve kids to plan and organize themselves for a twelve day hike, but the process is invaluable.

EQUIPMENT

Most programs find the hardest part of pulling themselves together is getting the equipment and clothing for a trip: wool shirts and pants, ponchos, sleep bags, tents, etc. The equipment is expensive and diverse, and to hustle up all the necessary gear is an enormous task.

Some equipment shops will give schools a discount. Most suppliers (any brand name) are also willing to provide a discount to any bulk order, and will often give a discount of 40% to any order over $500. This is an excellent way to buy gear, especially if you are outfitting yourself from batteries to tarps to compasses. It really pays to be organized enough to order a lot at once.

Some programs have even been lucky enough to have equipment donated. It seems that skis (last season's models or irregulars) are the most commonly donated item. Tarps or tents are one of the hardest items to find. Many people begin by using big sheets of polyethelene tarp, and switch to tarps or tents when the funds become available. It is certainly worth asking, however, as many people want to donate to a good cause.

CLOTHING

The importance of good wool clothing and rain gear cannot be overemphasized. Even in the Connecticut hills of 2,000 ft. elevation in August, we insist that students have wool clothing. Hypothermia can happen during any season. Wool hats, mittens, and shirts or sweaters are essential, and wool slacks are nice to have as well, but harder to locate.

We use army-navy wool for our crews. The clothing is cheap, sturdy, and ugly (so no one will steal it) and more than worth the investment. Tag sales and attics are also good sources of wool clothing.

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With the influx of acrylic and orlon, we do have to work to get kids into wool. Many do not own wool clothing, so we try hard to provide it.

FOOD

Perhaps the planning of menus and the guessing of quantities of food are the hardest parts of logistics work. Most people have trouble deciding how much cereal or pasta to pack, and can't come up with ideas for dinners and breakfast. To make things even more complicated, most students have three favorite meals: pizza, spaghetti, and hamburgers, and become fussy eaters when confronted with lentil soup or macaroni and cheese casserole.

We use mainly supermarket products for our trail meals. Freeze-dried foods are generally too expensive for us, and are often packaged in quantities too small for convenient use. Standard dried foods, however, (bouillon, powdered drinks, etc.) are really useful and convenient, and we use lots of those.

There is great debate among outdoor educators as to the best way to package food. Some people like to put all the food in a large pile and let students organize themselves. Menus then become a task of creativity and organization for the students, who have to plan meals, ration the goodies (candy, cookies, etc.), and split up the load. Other people like to pre-package each meal in a labeled plastic bag ("Wed. lunch", or whatever) that contains everything needed for that meal. (In this plan, generally the spices, butter, beverages, etc. are kept separately from the meals.) This method is good for beginners who need to learn something about the quantities and kinds of food eaten on the trail, but denies to students the experience of sorting through the food and organizing themselves.

The lists contained in this section are lists we have used in organizing clothing, food, repair kits, equipment, and first aid gear. These lists serve not only as organizational checklists but also as safety checklists. Logistics and safety are closely related, for most equipment is critical to both comfort and well being. For information on safety, see Chapter XIII.

General Group Equipment
(for twelve people)

3 tarps
2 stoves
2 fuel bottles
1 pourcap or funnel (for filling stoves)
1 large pot
1 small pot
1 fry pan
1 lid
1 large spoon
1 spatula
1 pot grip
1 can opener
1 say
1 folding shovel
1 2½ gallon water jug - collapsible
1 first aid kit - (see list, this chapter)
50' parachute cord
1 set of maps
3 compasses
plastic bags (large and small)

First Aid Kit

15 Tylenol aspirins
1 bottle Kaopectate
1 bottle Iodine
20 salt tablets
1 Caladryl or Rhulicreme Lotion
6 ammonia inhalents
1 bar soap
4 cravats
4 4 x 4 dressings
2 6" cling gauze
2 pressure dressings
2 ace bandages
2 combine dressings
6 butterfly closures
2 folls 2" tape
15 assorted bandaids
1 snake bite kit
1 square foot of moleskin
10 prep pads
10 safety pins
6 tongue depressors
1 wire splint
1 tweezers
1 scissors

RESOURCES

The Complete Guide to Trail Food Use, Forgey, Indiana Camp Supply, Inc., Indiana, 1977.

The Wilderness Handbook, Paul Petzoldt, Norton, 1974.

Now I see the secret of making the best persons, it is to grow in the open air and to eat and to sleep with the earth. - *Walt Whitman*

2 cold packs
1 thermometer
4 dimes
Oropharyngeal airways
Emergency phone numbers
Tincture of Benzaine
Students medical forms and authorization forms

Instructors should also carry and know how to use:
1) Benadryl
2) Epinephrine (adrenalin) for use in the treatment of anaphylactic shock.

Summer Clothing List

1 set raingear
1 towel
1 sturdy belt
1 swim suit
1 pair sneakers (for canoeing)
2 pair hiking pants (lightweight material and loose fitting, 1 pair wool, if possible)
1 pair hiking shorts
1 bowl, cup, and spoon
1 wool hat
1 wool shirt or sweater
4 pair socks - at least 2 pair wool
2 T-shirts
2 long sleeved shirts
3 pair underwear
2 bandanas
1 flashlight
extra alkaline batteries
small journal and pen
1 kit with toothbrush, toothpaste, bug repellent, footpowder and biodegradable soap
1 pair hiking boots with rubber cleated sole and ankle support. (Vibram soles are best)
1 pocket knife

Optional Items

Instamatic camera
sunscreen
sunglasses
harmonica or other small instrument

Do Not Bring

Expensive watches, jewelry or musical instruments
radio or tape player
fishing gear
drugs, pot, alcohol
large knives

We provide all other equipment for the course, and we will provide raingear and wool clothing (if necessary).

Spring and Fall Clothing List

1 set raingear
1 pair hiking boots
1 pair tennis shoes
1 wool hat
1 pair wool mittens
1 medium wool shirt
1 wool sweater
1 vest, second sweater, or lightweight parka
1 pair long pants, wool
2 - 3 pair wool socks
1 short sleeved shirt
1 long sleeved shirt
1 flashlight with batteries
1 cup, bowl, spoon
2 large plastic bags
1 toilet kit: small towel, toothbrush, toothpaste, biodegradable soap, comb, bug repellent
1 pocket knife
1 bandana

Optional

camera and film
sunvisor, sunglasses, sunscreen

Do Not Bring

expensive watches or jewelry, radios, drugs, pot, alcohol, fishing gear

Winter Clothing List

1 wool hat
1 wool shirt
1 additional long sleeved shirt or turtleneck
2 wool sweaters
2 pair heavy wool socks
1 pair light wool socks
2 pair wool mittens (mittens are warmer than gloves)
1 pair cotton socks
wool scarf
1 pair wool pants (if you have them, if not, we'll provide them)
1 warm jacket (fiberfill, down, wool)
1 pair long thermal underwear (fishnet, Duofold, wool or part wool is best)
1 pair warm boots (waterproofed)
spoon, cup, plate (plastic)
1 toothpaste and toothbrush
flashlight (with extra batteries)
down or fiberfill vest if you have it
windbreaker (nylon, 60/40 parka, etc.)
chapstick
bandana
pocket knife with can opener (No sheath knives)

(con't.)

(con't.)

Optional

Sunglasses
Mitten shells
Gaiters
Handcream

Do Not Bring

expensive watches or jewelry
radios, drugs, pot or
alcohol

Ski Repair Kit

These items should be packed in a stuff sack, and kept as a kit.

screwdriver
pliers
jack knife
steel wool (for fixing worn out screw holes)
binding parts: bales, screws, wire
spare ski tip
pole baskets
duct tape

Ski Tour Leader's Safety Pack - Extended Day Tour

alpine cord
extra wax, parafin
extra clothing: hats, socks, mittens
cork and scraper
first aid kit
sunscreen and sunglasses - if appropriate
headlamp with extra batteries and bulb
spare blanket
emergency food: cocoa, gorp
map of area, compass
sleeping bag and ensolite pad
pot to cook in, stove and fuel bottle
matches

Menus for Twelve for the Trail

Meals	Quantities
Breakfast	
1) oatmeal	4 cups
raisins, brown sugar, margarine	as needed for cereal
milk	2 quarts (2 c. powdered)*
tea, coffee, hot chocolate	as needed**
2) pancakes	3 c. bisquick, ¾ c. wheat germ
brown sugar and butter	1 bx. brown sugar, 1 stick marg.
Tang	2 quarts (2 cups powder)
tea, hot chocolate	as needed
3) granola	12 cups
powdered milk	2 quarts (2 c. powdered)*
Tang	2 quarts (2 cups powder)
tea, hot chocolate	as needed
Lunch	
1) milk bisquits	2 12 oz. boxes
cheese	2 lb.
sunflower seeds	2 cups
fig bars	1 box
lemonade	3 - 4 quarts
2) Ritz crackers	1 16 oz. box
tuna fish salad	3 7 oz. cans, mayonnaise***
dried fruit	1 lb.
fruit punch	3 - 4 quarts
3) flat bread (pita bread)	10 8" loaves
"spruced up" peanut butter (peanut butter mixed with powdered milk, raisins, and honey)	1½ lb
gorp	4 cups
lemonade	3 - 4 quarts
Dinner	
1) macaroni & cheese with carrots & onions	5 c. macaroni, ½ lb. cheese, 1 large onion, 4 large carrots
chocolate pudding	3 boxes
milk, tea, hot chocolate	as needed
2) lentil stew with rice, carrots & onions	2 c. lentils, 1 c. rice, 3 carrots, 1 large onion
graham crackers	1 box
milk, tea, hot chocolate	as needed
3) spaghetti with tomato sauce	3 lb. spaghetti, 3 12 oz. cans tomato paste, 1 onion
celery sticks	1 bnch. celery cut into sticks
orange jello	2 boxes jello
milk, tea, hot chocolate	as needed

* powdered milk is generally not popular, so little is needed.

** we usually limit cocoa to 1 serving/person/day, and bring lots of teabags and lemonade.

*** we get mayonnaise in commercial, foil packaged envelopes.

The man who sat on the ground in his tipi meditating on life and its meaning, accepting the kinship of all creatures and acknowledging unity with the universe of things was infusing into his being the true essence of civilization. And when native man left off this form of development, his humanization was retarded in growth.

- Chief Luther Standing Bear

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ONE DAY HIKE

Materials

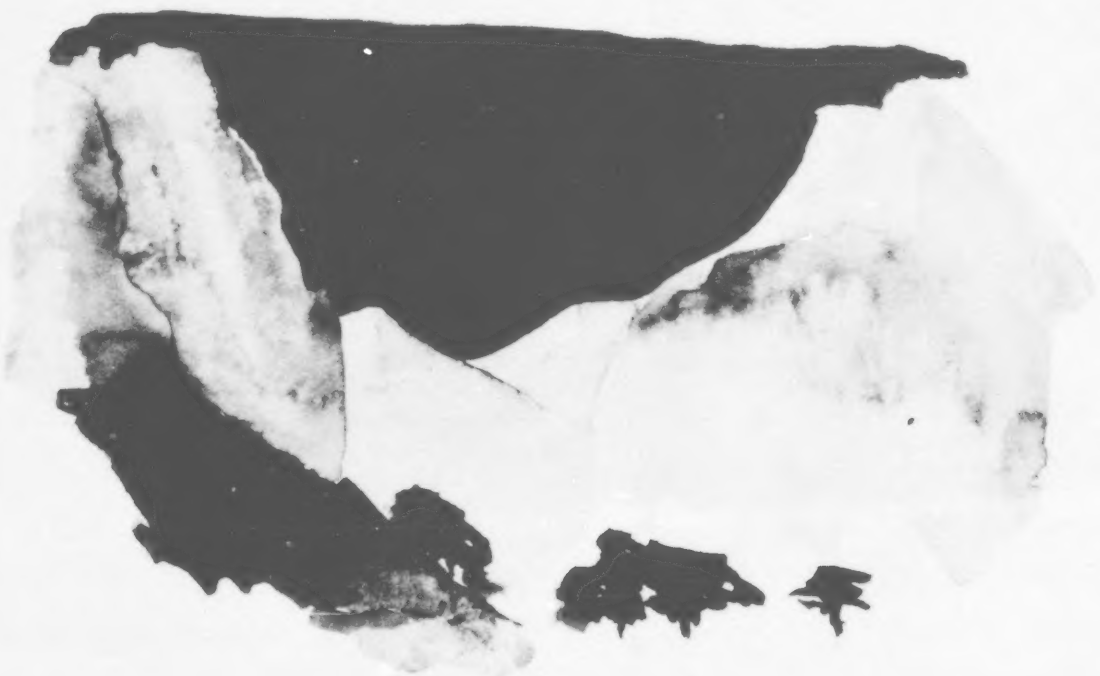
First aid kit, three topo maps of the area, 3 compases, water bottles, extra wool clothing and raingear, two sleeping bags, stove, fuel bottle, matches, extra food, two ensolite pads, flashlight.

Procedure

1) Meet students at school and drive to trailhead.
2) Play "Rock - Paper - Scissors".
3) Have each student and staff state expectations of the day.
4) Take students to an area to do a trust fall.
5) Do equipment initiative:
   a) Lay equipment on the ground.
   b) Have students list the ten things they want to have with them for the day's hike.
   c) Compare lists, decide what ten things you'll take for that day by which articles rated highest (were chosen most).
6) Review map and compass basics, making sure all students know where the trail is on the map.
7) Choose leaders for the day, explaining their role.
8) Begin hike, stopping for breaks and lunch. (First aid lesson could also be done on the trail.)
9) Finish hike, debrief the day.

Evaluation Activity

The debriefing serves to evaluate the activity; staff should also observe the level of participation of the group.



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SAFETY XIII

SAFETY

In the last ten years the number of outdoor adventure-challenge programs has skyrocketed. The wilderness was once used only by Outward Bound schools and the military. Now schools, churches, and youth-serving agencies have taken to the hills, lakes, and cliffs. With this rapid increase in popularity of the programs and almost mystical belief in the effectiveness of the wilderness experience has come an increase in the number of accidents in the outdoors. This increase has come about not only because of the increase in numbers, but also because of poor planning, over-zealous instructors and students, and lack of proper training and equipment.

In the Fall, 1979 issue of the Association for Experiental Education's Journal 90 outdoor programs were listed. It was also reported at the October 1979 conference of that same organization that in the previous year there had been nine fatalities within the field of outdoor education, a rather frightening statistic.

MAINTAINING SAFETY

We feel very strongly that teachers have a moral and personal responsibility to undertake with their students only the kinds of outdoor experiences they are prepared to teach and manage competently. If a teacher is competent to lead a short overnight but not a canoe trip, then his/her students should enjoy hiking but not paddling as part of their school experience.

Secondly, it is essential that outdoor educators have either an emergency medical technician certificate or an advanced first aid certification and cardio-pulmonary resuscitation certification. Good first aid skills are not only important to general health and safety, but also help to protect staff in the event of a medical problem, grievance, or law suit. To be uncertified can be deemed negligent. (More on insurance and liability later.) For the same reasons, it is also important to carry a well-supplied first aid kit and teach students how to use its contents. (See "Logistics", Chapter XII, for a first aid kit list.)

Instructors can also maintain the safety of an experience for students by setting a tone of safety, awareness, and carefulness. Instructors can encourage students to be on the lookout for dangerous branches or rocks near campsites or the misuse of stoves and matches. Teachers can also set an example by keeping their helmets tightened securely, putting on their raingear when needed, and moving carefully rather than haphazardly when hiking and scrambling. This kind of safety consciousness enhances students respect and appreciation for their physical well-being. An awareness of health and safety can help to prevent accidents.

We also believe that it is important to have two instructors with every group. Even if a group has only six students, a second instructor is essential. In the event of an accident, lost student, or illness, two instructors are absolutely essential. One teacher can stay with the group while the other seeks medical attention, or the instructors can safely

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spread out the group to hunt for the lost individual. Even though some programs operate with only one instructor, we feel that for programs based at schools, accountable to schools, and responsible to school policies, two instructors are needed.

INSURANCE COVERAGE

Insurance and liability issues are sticky issues that some administrators "avoid" investigating too closely or too thoroughly. The cost of insurance for adventure programs has sky-rocketed along with the numbers of programs and related accidents.

We at the Wilderness School are fortunate in being an agency of the State of Connecticut. Connecticut is "self-insured", i.e. covers its own insurance costs, and thus we are covered along with other state programs and departments. Independent programs and schools are different, however.

Most school systems carry insurance to cover their various programs: chemistry labs, football, machine shops, school busses, etc., etc.

School districts feel that all school-related activities are also covered, even if they include hiking and initiative problems. For some, however, there is a dividing line that does not include water activities or rock climbing.

Water activities are the most frequent setting for accidents within camp and outdoor programs[3], and very often insurance policies will specifically exclude water activities from insurance coverage. Since most school systems do not use lakes, rivers, or even swimming pools, coverage for canoeing or sailing must be purchased separately from the standard package. Rock climbing and ropes course use, being unusual activities, sometimes need to be explained and covered separately from other school activities. However, these two activities are safer than interscholastic football[4], and some schools feel that it is fair to include them as part of a general physical education program.

Independent programs and camps may have a harder time obtaining coverage, or will have to pay dearly for it. To those programs we can only suggest looking for wealthy philanthropists who can help support the high insurance costs.

[3] The Journal of Experiential Education, Fall, 1979, Meyers, "The Management of Risk", p. 10.

[4] Ibid.

POLICIES

The Wilderness School, Project Adventure, Outward Bound, and The National Outdoor Leadership School are all leaders within the field of adventure education, and are all supporters of the use of safety policies. A safety policy is a list of conditions that will be maintained by staff in running an outdoor event or experience. These policies include information of the staff-student ratio, amounts and kinds of equipment, background preparation of the students, and site survey for the activity. The policies serve several purposes.

The first purpose is to force the program to examine the activities it uses, and to think carefully about the safest, most effective way to conduct each one. Second, a policy provides a uniform method of running a climbing site or a bushwack, and helps the program maintain consistency and excellence in the experience it provides. Next, a policy gives the instructors in the field a structure to use, a checklist to help them remember all the little yet important details. Last, a safety policy helps to demonstrate that a program has been *responsible* rather than *negligent* in the event of an accident.

We highly support the use of safety policies, and have a policy for every event we run, from paddling to solo to rockclimbing. We've reprinted the major ones in this section to aid programs in developing their own policies.

LIABILITY

This is the topic that makes instructors lose sleep and administrators turn grey. "What if . . . . . ?" we all think, and wonder if we'll lose our shirts, or worse yet, lose the life of one of our students.

From all the information we have digested, the situation is not as frightening as it seems. In order to protect themselves, instructors and program administrators are obliged to run safe, well thought out programs. These programs must have trained staff, quality equipment, prepared students, (meaning dressed, fed, and medically attended), and good safety policies. All components must be documented. If we behave "responsibly and prudently" in any given situation, it is unlikely that we will be found liable. It is in part for this reason that written policies, careful itineraries, double checked equipment, and medical forms must be kept up to date. Aside from being basic to a good, safe program, they help protect us from lawsuits.

In addition to the liability coverage that is (hopefully) provided by your school or program, teachers and instructors can obtain their own liability insurance. Home owners can sometimes add a business pursuits insurance rider to their homeowners insurance. Also, the American Alliance for Health, Physical Education, and Recreation offers an inexpensive, but somewhat limited liability insurance policy.

CAREFUL PLANNING

A safe program begins with thorough planning, and includes consideration of the following items:

Weather - do you have a long range forecast? are the students dressed properly for the course? (wool clothing, good shoes, raingear) have you noted the high, exposed parts of the trail that are dangerous in thunderstorms? do instructors know something about weather patterns?

Itineraries - have you left a daily schedule with someone at home? have you planned your transports? do you have a copy of your own route with escape routes and available telephones noted? do you have the local phone numbers for police, ambulance, fire, hospital, etc.?

Student Information - has each student completed a medical form? have you noted those with allergies - particularly to insect bites? do any students have knee or back problems? does each student have a parent permission slip and waiver form for emergency surgery? have students been screened for any violent, sexually deviant, or other extreme behaviors? do you know who can swim and who can't?

Food - is there enough food? have high calorie, high protein foods been included? are there enough fats? are easy-to-eat, quick energy foods available for emergencies? does an instructor have an emergency meal? have you planned some time to teach students how to prepare meals?

Water - do you know if the available water is safe to drink? do you have enough iodine or halazone to treat the water? do students have water bottles? (On hot days, they should be filled and readily available.) do students know rules about swimming and bathing?

First Aid Kits - are the first aid kits thorough and complete? do staff know how to use their contents?

Policies and Procedures - are all staff familiar with the policies appropriate to the course? is the equipment available? are there accident report forms available? (see next section)

Route Planning - has at least one of the instructors traveled the planned route? are there an adequate number of maps and compasses? are campsites available? are fire permits or group permits necessary? are alternative routes or escape routes available if an emergency arises?

Preparedness - do students know how to dress in layers, pack their backpacks, set up a tent or tarp, etc., etc.? if not, is there adequate time to instruct them thoroughly? are they motivated for the experience?

Equipment - are there enough tarps, foam pads, sleeping bags, etc., for the group? are the stoves working well? is the repair kit complete? did someone double check the gear against the equipment list?

RESOURCES

Summer Safety Manual, Cardwell, Project DARE, Toronto, Canada, 1977.

Emergency Care and Transportation of the Sick and Injured, American Academy of Orthopedic Surgeons, Indianapolis, Indiana, 1971.

Advanced First Aid, American Red Cross, Doubleday and Company, New York, N.Y., 1973.

This next section contains permission slips, liability waiver forms, medical forms, and safety policies. Hopefully these will help you in maintaining your own program's safety.

SAFETY POLICIES

a) Rules

All students must be informed of the rules governing each course.

Key points:

a) Stay with the group - leave only with two other people after informing instructor.
b) No students are to go into stores or restaurants.
c) No smoking in state vans, near equipment, near stove fuel, while participating in activities or tasks.
d) No drugs, pot or alcohol.
e) No fighting.
f) No sex.
g) Show respect for private property, fences, animals - stay on trail.
h) Leave the vans clean.
i) Do not run - W.S. will get students out if they want to leave.
j) Eat three meals a day.

k) Do not litter (includes matches and cigarettes.
l) Do not carve on trees or break limbs.
m) Don't kill animals.
n) Use only old fire scars for fires.
o) Don't allow *any* food or soap in streams or lakes.
p) Never go in water without instructor between students in over waist deep water.
q) Bury all bodily wastes more than 150 feet from water.
r) Listen to and follow all rules for specific activities such as climbing or canoeing.
s) Be willing to try.
t) No bumming cigarettes from others.
u) No knives on course larger than pocket knife – no sheath knives.
v) Students must wear shoes at all times - even when dipping.

b) First Aid

All students must learn first, to respond to critical, and secondly, less-critical medical emergencies.

Key Points:

Please refer to the chart in "Prerequisites", Chapter IV.

c) Run and Dip

Students run one - two miles followed by a quick swim. This builds physical fitness, self-discipline, and group spirit.

Key Points:

1) An instructor will "sweep" at the end of the group on the run.
2) Crews will run as a group; no splitting.
3) Students will be encouraged to run the whole distance, no matter how slow their pace.
4) Dip will be immediately after the run, before the body has time to cool.
5) Students are never to be allowed to swim or or be in water over their head at any time during a dip. An instructor shall always remain between all students and deep water. An instructor shall be the last person out of the water.
6) Students are never to be allowed to dive into water.

d) Canoeing

Students will paddle both flat and white water, and instructors will inform them of all safety procedures and rules.

Key Points

1) Students will learn about the following hazards of white water, and how to avoid them: *pinning, foot trapping, river hazards, hypothermia.* Emphasize not walking or standing in rapids.
2) Prior to canoeing, all students shall have been given first aid instruction on drowning, mouth to mouth resuscitation, and water rescue techniques.
3) All staff and students shall wear life jackets and white water helmets at all times on white water rivers.
4) Prior to being in canoes, students shall have demonstrated their swimming ability to instructors. There shall always be an instructor in the water between students and deep water and students shall demonstrate swimming ability one at a time and in water they can stand up in.
5) Each group shall have a spare paddle in each boat, a throw line and a first aid kit in the sweep canoe.
6) Instructors will always check canoe equipment list to insure all equipment is available and in good condition.
7) There will not be any night canoeing or canoeing during an electrical storm unless reasoned judgement dictates otherwise.
8) A vehicle shall accompany each canoe expedition when air and water temperature are less than 100°.
9) Students shall not canoe on Long Island Sound.
10) Students can paddle class III water only with the prior approval of the Director or Assistant Director.

Director or Assistant Director.

11) Specific instruction in the following shall be given:
    a. Rapid swim.
    b. Exiting a broached canoe.
    c. Tying gear in the canoe so no lines are free.
    d. Securing all loose clothing, especially ponchos, so they don't get caught in the event of a capsize.
    e. Emergency signals for getting boats out of the water.
    f. Self rescue.
    g. Use of the buddy system, with each canoe responsible for the canoe behind it.
    h. Staying upstream of a canoe, not walking out of a rapid, and not fighting the current.

e) Rock Climbing

Students rock climb to promote trust, a sense of responsibility, self reliance, and problem solving skills.

Key Points:

Rock Climbing

For rock climbing rules see Chapter VII.

Tying In and Belaying

1) All tie-ins for belay anchors must be checked by climbing instructor before allowing students on rope.
2) Tie into ends of rope with a bowline. Finish with simple overhand knot.
3) Tie in to middle of rope with figure eight or butterfly knot directly or clip locking "biner" to swami. i.e. second instructor.
4) Tie into anchor with double bowline unless situation warrents otherwise. Free end goes to belayer who ties in with bowline around waist.
5) All student belays must be second belayed by competent staff.
6) Second must be opposite side of belayers brake hand and belay around their own back.
7) Climbing staff has option of using swiss seats or leg loops to insure comfort and safety of climber when necessary.
8) "Backsaver" tied with butterfly behind belayer.

Rappelling

1) Gloves optional.
2) Rappelling student must have safety belay.
3) Anchors must be absolutely *sound* and *separate*.
4) Demonstrate and use the figure eight descender.
5) Hair and loose clothing tucked in, all jewelry removed.
6) Instructor must be present at bottom of rappel with hand on rope.
7) Rappelling system must be checked by instructor rappelling first, check for twisted or snagged rope.

f) Ski Touring

Students ski on extended day tours, at down-hill ski areas, or on short ski trips.

Key Points:

1) Students should be aware of the hazards of backwoods travel in winter. (See Chapter VIII, "Outdoors in Winter".)
2) Students should be instructed in winter health hazards: hypothermia, frostbite, dehydration, sun burn, snow blindness.
3) All groups will have a complete first aid kit.*
4) All groups will have a complete repair kit.*
5) All leaders will have a complete safety pack.*
6) All students will be properly dressed: long underwear, wool pants and shirts, wool hat, mittens, socks, appropriate outer clothing.
7) It is strongly advised that ski instruction be given and practice allowed to increase the mobility and safety of the group. (See Chapter VIII, "Teaching Basic Flat Track Skiing".)
8) Day tour groups will leave an itinerary and estimated time of return at base camp.

INFORMATION RELEASE FORM

We the undersigned, give permission for the Wilderness School and/or

_____
NAME OF AGENCY

to gather and exchange any and all information pertaining to

_____
NAME OF STUDENT

even if this information is considered confidential by the source, i.e., schools, doctors, or hospitals.

Dated _____

Student's Signature _____

Parent's Signature _____

*See Chapter XII, "Logistics", for list.

CONSENT AND WAIVER OF LIABILITY

To The Student:

There are certain inherent risks which you take on when you participate in activities of a physical nature. Your instructors will tell you of safety rules and will conduct all activities in a safe manner. However, the entire responsibility is not the instructors'. You, too, have a role in maintaining the safety of the group. You should call to the attention of the instructors any situation which seems to you to be a possible danger to you or your fellow students. This could include:

- - - broken equipment
- - - feeling sick or very tire
- - - having a lot of trouble in performing or learning a skill

To the student and parent/guardian:

We have read the above information and understand the physical and stressful nature of the Wilderness School course. We have noted above any medical or physical conditions that the student has which might affect his/her ability to participate in any activity. As a student, I will at all times wear any required equipment, and follow the directions of the instructors.

Permission is granted by those signed below for any emergency anesthesia and/or operation which might become necessary. Consent is also granted for the student to attend the Wilderness School and participate in the follow-up activities of the program. Permission is also granted to the Wilderness School to use slides or photographs of this student in slide shows, press releases, or brochures.

_____ _____
Student's signature Date

_____ _____
Student's signature Date

For our records, answers to the following questions are required in detail.

1. Is the applicant covered by a hospitalization and medical care policy? _____

2. If yes, name the Insurance Company issuing the policy. _____

_____

Policy Number _____

Address of Company _____

PHYSICIAN's EXAMINATION (To be completed by doctor of medicine)

Background for Physician:

Wilderness School operates short-term, physically intensive courses of twenty-one days duration in wilderness environments in all types of weather. The graduated conditioning part of the course may include a run and dip each morning, swimming, balancing, lifting and climbing. Students sleep in tents inside sleeping bags for the entire course. The student must be emotionally as well as physically prepared for rigorous demands on the course. Students carry thirty to fifty pound packs on expeditions of three to six days duration, and engage in river canoeing trips lasting for periods of up to five days.

The School provides ample and nutritious meals which the student cooks, but no special dietary requirements will be met. The program provides a solo experience of up to two days for which a minimum of food is provided. Students are expected to refrain from the use of stimulants or depressants during the course. While the course is stressful, it is expected that any person with normal physical and mental capacity can complete the program successfully.

EXAMINATION _____

1. Applicant's Birthdate _____ (Month / Day / Year) General Appearance _____
2. Height _____ Weight _____ BP _____ P _____
3. General Health and Nutrition: _____

Skin: _____ Urinalysis: _____

Lymph nodes: _____ Hemoglobin: _____

Eyes: _____ Nose: _____

Neck: _____ Thyroid: _____

Thorax and lungs: _____ Peripheral Vessels: _____

Heart: _____

Abdomen: _____ Hernia: _____

Extremities: _____ Scars: _____

Feet: _____ Ankles: _____

Knees: _____ Genitalia: _____

Back: _____

CNS: _____

Remarks: _____

4. Immunizations and Tests:

   A. Has the applicant had a DPT series? _____ _____

   B. The following immunizations are required. Please indicate dates. BOOSTER SHOTS MUST be brought up to date.

      TETANUS _____ POLIO _____

   C. If over 21, applicant should have had a chest x-ray within the last year.

      Results: _____ If under 21, a TBTine Skin Test can be given.

5. Is the student receiving any medication? If so, please state dosage, type of medication, possible side effects, (if any) and condition being treated.

6. Is the applicant allergic to any medicine (e.g., penicillin, aspirin, sulfa, etc)? _____

   _____

7. Is the applicant allergic to bee stings, insect bites, etc? _____

   _____

   On the basis of your physical examination of the applicant and the applicant's medical history, do you feel this individual can participate in the Wilderness School program?

   Yes _____ No _____

   Do you feel that further examination by a specialist is indicated?

   Yes _____ No _____

   If yes, what kind of specialist? _____

SIGNATURE OF EXAMINING PHYSICIAN _____

NAME OF EXAMINING PHYSICIAN _____
(PLEASE PRINT OR TYPE LEGIBLY)

ADDRESS _____

BUSINESS TELEPHONE: _____ DATE: _____

EVALUATION XIV

INTRODUCTION

Program evaluation has become a standard component of educational programs in recent years. Today's demand for accountability combined with the search for effective educational alternatives has necessitated this. Evaluations are used to generate data in order to:

a) determine if students are learning the information being taught,
b) determine if students are changing attitudinally or behaviorally,
c) provide on-going feedback on program design and curriculum to aid in making program modifications,
d) use in final reports to funding agencies,
e) use to sell the program to funding agenices, school boards, etc.

An extensive evaluation generally requires a substantial budget, an enormous amount of time, a thorough understanding of methods of educational research, consultants, computer time, and perhaps even additional staff. If your program must undertake a formal evaluation, you would be well advised to hire an outside consultant to perform the evaluation. (We did.)

On the other hand, if you do not have to have a formal evaluation report, then evaluation can take the form of homemade questionnaires and tests. The resulting information will not be statistically significant but it will be interesting to share with parents, teachers, and school boards. It will also help you in planning thoroughly and in revising your program design. We've enclosed some of our homemade tests to help in your planning.

Evaluating the overall effects of an adventure experience is not easy. The experience often tends to be highly emotional for students. Many times the activities cause the students to feel intense emotions and these strong feelings seem to catalyze major personal insights and often a desire to change one's life. It is difficult to quantify such a highly qualitative experience.

The evaluation system we designed for the Alternative Education Project uses a variety of both formal and informal methods. Our attempt has been to generate data in as objective a manner as possible using standardized assessment instruments, questionnaires of our design, and third party observations. These three techniques are described below.

STANDARDIZED MEASURES

We selected several standardized instruments which we gave a few weeks after the beginning of the school year. We gave each of our students the following standardized tests:

1) Cooper-Smith Self Concept Inventory. This self concept inventory is filled out by students and reflects how they feel about themselves (general self, social self, self interacting with parents, self interacting with an academic setting). The student answers each statement on the questionnaire as "like me" or "unlike me".

2) Arlin Hills Attitude Scales. The Arlin Hills is a scale that assesses students' attitudes towards different aspects of school. There are sixty items that are broken down into four sub groups: attitudes towards mathematics, attitudes towards the learning process, attitudes towards language arts, and attitudes towards teachers. Each question is illustrated, and the student rates his/her agreement with each question on a four point scale.

3) Academic Measures. We also used pre-post data from standardized academic tests. These results were used to demonstrate gains in academic achievement and to make comparisons with other groups of students.

All the above tests were given again at the end of the school year.

QUESTIONNAIRES OF OUR OWN DESIGN

We also designed two other tests which were given on a pre-post basis.

1) Outdoor Education Test. This test tried to measure basic outdoor knowledge. There are twenty-six questions covering camping skills, backpacking, canoeing, rock climbing, etc.

2) Recreation Survey. On this form students are given three choices, *never, sometimes,* or *frequently,* to rate their interest in participating in a variety of recreational activities.

These homemade tests helped us to see if we were teaching effectively and if students developed their own interests and motivation to try new things.

(Copies of these tests are at the end of this chapter.)

THIRD PARTY OBSERVATION

One additional questionnaire was completed by a professor in special education from Southern Connecticut State College. His role was to participate in our activities, observe the process, and then make pertinent suggestions. The questionnaire addressed the objectives for each activity. Each objective was scored as either *not met, partially met,* or *completely met*. Feedback from his observations was shared with the staff immediately after the course.

SOME SUGGESTIONS ABOUT TESTING

It is important to choose your testing environment carefully. Try to administer the tests in a comfortable, quiet environment. If possible, wait a few days after the end of a wilderness experience before testing in order to allow your students time to rest and clean up before taking the post test. Also, be consistent in your testing procedures; try to use the same location, same amount of time, same verbal instructions, etc., etc. Lastly, think about your students' reading ability and choose your instrument appropriately. Give the students assistance when necessary, but try to use the exact text language as you read aloud and explain.

IN CLOSING

Obviously program evaluation is a large task. It must be well thought out, and then it must be implemented at the beginning of the school year when you already have six dozen other things to do. It is, however, of critical importance to program improvement and proper assessment. If you have the money, hire an outside consultant. S/he will undoubtedly be more objective than you will ever be about your own program. His/her impartial status will also be an asset in using the evaluation results in reports or presentations.

RESOURCES

Outward Bound: A Reference Volume, Arnold Shore, Outward Bound, Greenwich, CT, 1977.

A Review of Research and Evaluation Literature on Outward Bound and Related Educational Programs, Robert Godfrey, Colorado Outward Bound School, Denver, Colorado, 1979.

How Delinquents Succeed Through Adventure-Based Education, Journal of Experiential Education, Winter, 1978.

The Role of the Wilderness Experience in the Treatment of the Youthful Offender: A Conference Report, Touch of Nature Environmental Center, Southern Illinois University, Carbondale, Illinois, 1978.

STANDARDIZED INSTRUMENTS

The following eleven standardized instruments are frequently used in evaluating adventure programs. To purchase a copy, contact the appropriate party:

Tennesee Self-Concept Scale - Counselor Records and Tests, Box 6184, Acklon Station, Nashville, TN 37212

Piers-Harris Childrens' Self-Concept Scale - Counselor Records and Tests, Box 6184, Acklon Station, Nashville, TN 37212

Body Cathexis Scale - Dr. Jourard, University of Florida, Gainesville, Florida

Minnesota Multiphasis Personality Inventory - Psychological Corporation, 757 Third Avenue, New York, N.Y. 10017

Personal Orientation Inventory - Education and Industrial Testing Service, San Diego, CA 92107

California Psychological Inventory - Consulting Psychologists Press, Inc., 577 College Avenue, Palo Alto, CA 94305

Jesness Inventory - Consulting Psychologists Press, Inc., 577 College Ave., Palo Alto, CA 94305

Quay Battery - Herbert C. Quay, Research Director, Children's Research Center, University of Illinois, Urbana, IL

Wichmann-Andrew Delinquency Intervention Scale, - S. Andrew and T. Wichmann, Touch of Nature Environmental Center, Southern Illinois University, Carbondale, IL 62901

Devereux Adolescent Behavior Rating Scale - Department of Publications, The Devereux Foundation, Devon, PA 19333.

Self-Concept Inventory - Coopersmith, S. Coopersmith, Department of Psychology, University of California Davis, CA

RECREATIONAL INTEREST SURVEY

NAME _____

Pre _____

Post _____

	NEVER	SOMETIMES	OFTEN
watch T.V.			
listen to music			
play team sports (basketball, baseball, football, etc.)			
swim			
bicycle			
hike			
downhill ski			
cross country ski			
canoe			
sail			
shoot pool			
dance			
horseback ride			
skateboard			
motor boating			
cook			
weight lifting			
reading			
movies			
rock climbing, rappelling			
camping			
running			
painting/drawing			
working on cars			
sewing			
make music			
other:			

WILDERNESS SCHOOL

STUDENT FIELD EXPERIENCE QUESTIONNAIRE

Name _____ Date _____

Participating group (please check) Shelton _____ Winsted _____

Monroe _____ New Haven _____

Nature of Experience (e.g. 3 day backpacking, 1 day skiing, etc.)

_____

_____

1. Describe one thing that went well on the course. _____

_____

_____

2. Describe the one thing that did not go well on the course. _____

_____

_____

3. How could the trip be improved? This information will be helpful in planning future courses.

_____

_____

_____

4. List the things that you learned on this course. _____

_____

_____

5. Will any of the things you learned on this course be helpful to you in your future life?

_____

_____

SPECIAL EDUCATION PROJECT
WILDERNESS SCHOOL

3rd PARTY EVALUATOR – FIELD EXPERIENCE QUESTIONNAIRE

Name _____ Date _____

Check participating agency: Shelton _____ Winsted _____

Monroe _____ New Haven _____

Wilderness School _____

Nature of the Experience (e.g., 3 day backpacking trip, 1 day skiing trip, etc.):

_____

_____

_____

Were the objectives of the activity met? (List activity and circle number for rating)

	Not Met	Partially Met			Completely Met
1) _____	1	2	3	4	5

Comments: Positive _____

_____

_____

Negative _____

_____

_____

2) _____ 1 2 3 4 5

Comments: Positive _____

_____

_____

Negative _____

_____

_____

Other: _____

_____

Name _____ Date _____

1 In rainy weather I would wear . . .

a. a down jacket
b. a poncho
c. a bathing suit
d. a sweatshirt
e. I don't know

2. I lose most body heat from . . .

a. toes
b. arms
c. head
d. legs
e. I don't know

3. When starting a fire in the wilderness what natural materials do you use?

a. candy bar wrappers
b. logs
c. pine cones
d. birch bark and small twigs
e. I don't know

4. Where do you clean dishes in the wilderness?

a. in a stream or pond
b. at least 150 feet from a stream or pond
c. wipe them off and wash them later when you get home
d. it's best to use paper plates and then just burn them
e. I don't know

5. A type of meal best suited for wilderness travel would be . . .

a. steak and potatoes
b. macaroni and cheese
c. ice cream and cake
d. cottage cheese and peaches
e. I don't know

6. Different ways to cook in the woods include . . .

a. campfires and cookstoves
b. hot plate
c. candles
d. gas range
e. I don't know

(con't.)

(con't.)

7. To insure safety while canoeing I should . . .
   a. tie myself to the boat
   b. tie the canoes together
   c. wear a life jacket
   d. canoe alone
   e. I don't know

8. If I tip over while white-water canoeing I should . . .
   a. swim to shore
   b. get upstream from my canoe
   c. tie myself to the canoe
   d. scream frantically for help
   e. I don't know

9. What is a topographical map?
   a. one that shows water sources and their depths
   b. a map that points out the tops of things
   c. a map that shows how high the land is
   d. a map of the U.S. as seen from the North Pole
   e. I don't know

10. What do brown lines represent on a topographical map?
   a. water
   b. roads
   c. elevation of the land
   d. boundary markers
   e. I don't know

11. What is a compass used for?
   a. reading temperature
   b. telling what direction is up hill
   c. telling someone when to eat
   d. telling what direction is "North"
   e. I don't know

12. How do you use a map and compass together?
   a. line map and compass up to find which way to go
   b. wrap a compass inside a map to keep it from breaking
   c. you don't use a map and compass together
   d. stand on map and hold compass in your hand
   e. I don't know

13. What is a bushwack?
   a. walking in bushes with a baseball bat
   b. a furry animal like a racoon
   c. finding north and walking in that direction
   d. walking through woods without a trail
   e. I don't know

SOME FINAL THOUGHTS XV

We wish all those who undertake the challenging, engaging, and draining kind of teaching that's described in this book all the best. May day one always be sunny and the salt never get wet.

" . . . . . and so there ain't nothing more to write about, and I am rotten glad of it, because if I'd a knowed what a trouble it was to make a book I wouldn't a tackled it and I agoing to no more. But I reckon I got to light out for the territory ahead of the rest, because Aunt Sally she's going to adopt me and sivilize me . . . and I been there before . . "

- Huck Finn
Huckleberry Finn, by Mark Twain

APPENDIX XVI

APPENDIX I

WILDERNESS SCHOOL CONTRACT

Dear Student: The most important thing you do in the Wilderness School program is to write this contract . . . It's personal . . . It's a deep commitment on your part that you are serious, well-intentioned and ready to work on changes.

Susan Brown hereby seeks enrollment in the Wilderness School through execution of this contract for follow-up services with *Magnolia Alternative High School*.

It is understood that the student whose name appears above has read this contract for follow-up services and understands the nature and purpose of the Wilderness School program and has voluntarily chosen to participate in the wilderness challenge and follow-up components of the School.

The agency whose name appears above further warrants, as an express condition of the student's acceptance into the program of the Wilderness School, that the services and activities listed below shall be provided for the student upon successful completion of the wilderness component. It is further understood that these services and activities are the sole responsibility of the agency and failure to meet the provision of services listed below will jeopardize the applications of future students referred to the Wilderness School by this agency.

To the Student:

List your goals for the coming year. After each goal, write down ways you will achieve these goals. Be as specific and complete as possible and try to have a time table for reaching these goals. Above all, be realistic.

Personal:

1) *I will try to become more confident in talking with strangers, such as store clerks, teachers, boys, etc.*
2) *I will try to learn how to help people out even if it means a sacrifice on my part.*
3) *I want to work at controlling my temper.*
4) *I want to feel better about myself and have overall confidence in myself (asking questions or trying new things).*

Family:

5) *I would like to more rationally and constructively solve problems with my mother and others with whom I become angry.*

School:

6) *I would like to perform the best I can at school work, possibly attain a steady B average.*
7) *I want very much to participate in a school sport (team or individual).*

21 Day Course Goals:

1) *I want to have more confidence in trying to make friends.*
2) *I want to work at not giving up or quitting when I meet a challenge that might be difficult or frustrating, i.e., school work, sports, emotional problems.*

To the Agency:

List the ways in which you will support the student in their involvement with the Wilderness School and their efforts to make changes in their lives. Remember, this is a year long commitment. It is required that your goals include arrangements for meeting with the student.

1) *The Magnolia Alternative High School will assist Susan in finding part time or full time employment should she request it. Susan will have "priority status" in the job bank.*
2) *I will meet with Susan on a twice monthly basis through out the contract year and will be available at any time should she need assistance.*
3) *I will make it possible for Susan to assist with any Magnolia A.H.S. wilderness-related activities.*

To the Family: (when applicable)

Please list ways in which you will be supportive of your son/daughter efforts to change and work on contract goals.

1) *I, Susan's mother, will take the time to sit down and talk calmly with Susan when we have problems that need to be discussed.*
2) *I will participate in and arrange for family counseling sessions with the Marshfield Community Mental Health Center.*
3) *I will participate in one Wilderness School student-parent short course during the fall.*

The student whose name appears above warrants that participation in the above listed services and activities is part of the program of the Wilderness School to which the student is applying.

The agency and student listed below as parties to this follow-up contract further warrant that this contract is complete to the best of their knowledge and that a copy of the contract has been furnished to them.

Signature below constitutes an agreement for the conduct of the warranties and services listed in this contract and is an acknowledgement that all parties have read and understand the terms of the agreement.

Signed _____
(SIGNATURE OF STUDENT)

Print Name, Address and Telephone Number of Student:

Signed _____
(SIGNATURE OF AGENCY REPRESENTATIVE)

Print Name, Address and Telephone Number of Agency:

Signed _____
(SIGNATURE OF WILDERNESS SCHOOL REP.)

Date _____

Signed _____
(SIGNATURE OF PARENT)

APPENDIX II

REVIEW OF WILDERNESS SCHOOL RESEARCH
ALTERNATIVE EDUCATION PROJECT 1978-1979

In 1980 Buck Harris together with Drs. McGowan and Olshin from Southern Connecticut State College completed a report on the 1978-1979 Wilderness School Alternative Education Project (W.S.A.E.P.).

Section I reported on the effects of the S.E.P. activities (wilderness challenge experiences and weekly classroom lessons) at the four alternative schools serviced by the project during the school year. The student population included high school juniors and seniors who were emotionally disturbed and/or learning disabled.

The findings showed an increase in achievement in reading, spelling and math from 13 - 40% , and increase in knowledge of environmental studies from 15 - 55%, improvement in self concept of 8 - 22%, a 190% increase in recreational interest, 45 - 107% increase in attitudes towards math and 20 - 28% increase in attitudes towards language arts. This study did not attempt to separate the effects of the alternative school activities from the W S.A.E.P. activities.

Phase II of the project studied a small group of these same students who attended a standard W.S. 21 day course during the summer months following their Phase I involvement during the school year. Those students attending the 21 day wilderness challenge course showed a significant increase in self concept (.05 level) and an increase in knowledge of environmental studeis.

APPENDIX III

REVIEW OF WILDERNESS SCHOOL RESEARCH

In 1975, Dr. Solomon Cytrynbaum from Yale University School of Medicine wrote a study entitled: The Connecticut Wilderness Program: A Premilinary Evaluation Report. In this study, Dr. Cytrynbaum concluded that the Wilderness School program, including the follow-up component, had successfully helped students to decrease legal difficulties, substance abuse and systems dependency.

In 1977, Debbie Gaston from the University of Connecticut completed a study entitled: An Empirical Investigation of a Wilderness Adventure Program for Teenagers: The Connecticut Wilderness School. Dr. Gaston found that this novel therapeutic approach provided young people with an increased sense of personal control in their lives and increased self-confidence.

In 1978, Morris Stewart completed a study entitled: Effects of the Connecticut Wilderness School on selected personality characteristics and attitudes of troubled youth. In this study, Dr. Stewart concluded that the program produced some immediate changes. More significant long range findings tended to show the Connecticut Wilderness School as a catapult for long range behavioral change.

In 1980, Peter Gibson of the Columbia University completed a study of the overall effectiveness of the Wilderness School summer courses. To do so he chose to examine two primary variables, self concept and interpersonal competence. The results indicate that the Wilderness School is a very effective program in bringing about changes in the self-concept and interpersonal competence of delinquent, emotionally disturbed and other problem youth.

APPENDIX IV

OUTWARD BOUND RESEARCH

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